WATER RESOURCES POLICY ISSUES
(Field Hearings)

HEARINGS

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

NINETY-SEVENTH CONGRESS

FIRST SESSION

JULY 2, 1981—ALBUQUERQUE, N. MEX.
AUGUST 7, 1981—JUNEAU, ALASKA
AUGUST 10, 1981—SANTA FE, N. MEX.
AUGUST 12, 1981—ST. PAUL, MINN.
AUGUST 17, 1981—GREAT FALLS, MONT.
AUGUST 18, 1981—RAPID CITY, S. DAK.
AUGUST 19, 1981—VANCOUVER, WASH.

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WATER RESOURCES POLICY ISSUES

THURSDAY, JULY 2, 1981

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Water Resources,
Albuquerque, N. Mex.

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator Domenici. The hearing is called to order. First I want to apologize for being slightly late this morning. I think some of you know the reason for that. What I'd like to do is move as expeditiously as we can, but I want to hear everybody.

The subject of this morning's hearing is S. 620, legislation which I introduced with the cosponsorship of Senator Schmitt.

I believe it is no exaggeration to say that the very future of Albuquerque depends on adoption of this legislation.

It is, therefore, a particular honor to welcome among our witnesses today the leaders of our city government over the past 25 years. Every one of you has worked diligently to protect our future. These men will discuss their views on what they saw for Albuquerque when they committed our city to the purchase of San Juan-Chama water. Money has been budgeted every year over the past decade to buy this water. Albuquerque made a commitment; this legislation will help it to be fulfilled.

I believe it would be helpful to review the history of our San Juan-Chama water—water we bought and paid for. It is water that belongs to the people of Albuquerque. But ownership of that water requires storage. That is what this legislation would permit—the storage of Albuquerque's water in Federal reservoirs, where excess capacity exists.

Our city contracted to purchase this water in 1963. The city's payment last year was $923,000. Beginning next year, we will have the right to 48,000 acre-feet yearly, at an average cost of $30 an acre-foot. But it is water we must take, or we will lose it.

The city earlier contracted to store water at Elephant Butte. However, a technical dispute has arisen over that storage. This legislation would make it absolutely clear that storage is permitted both at Elephant Butte, as well as at Abiquiu Dam.

S. 620 authorizes that storage, when storage would not interfere with the authorized purposes of the project, such as flood control. This legislation, of course, imposes no new costs on the Federal Government. It allows the storage of water. Any additional costs for operating and maintaining Abiquiu or Elephant Butte due to this storage would be paid by the city of Albuquerque. Of course, this extra water would add to the power production at Elephant Butte, benefiting the Nation.

I should point out that it is the intent of the bill to require payment of these operating costs. The bill does not contemplate any repayment of capital costs, which, of course, have been already made and were fully justified for other project purposes.

The second aspect of this bill authorizes construction of an important flood control project by the Army Corps of Engineers, traditionally an exclusive Federal responsibility. This $33 million project would protect the Albuquerque Valley against floods with a frequency of nearly once every 300 years. This project has received strong support within the corps. It has been approved by the Albuquerque District, the Southwest Division, the Board of Engineers, and, most recently, by the Chief of Engineers. It was approved by this subcommittee last year, although no full water resources legislation became law.

This proposal would extend our current levee system to the north and to the south. My proposal, however, could produce even higher levels of flood protection for the citizens of Albuquerque than contemplated in the corps project. This is because the bill authorizes the corps to dredge the Rio Grande Channel to increase its capacity to move floodwaters past the city. Thus, instead of raising the existing levees, the corps could increase flood protection by lowering the riverbed.

Last year, Congress passed my proposal to establish the maximum size of this levee project. That was an important act, for it established the necessary height of the bridges across the Rio Grande. As a result of that law, the New Mexico Legislature this year appropriated money to rebuild both the Central Avenue and the Barelas Avenue bridges, both of which will soon be widened to six lanes from the present four lanes.

Why was that important? By building upon the current bridges, these improvements can be made for less than half of what it would cost to raise the height of the bridges, saving the State and the people of Albuquerque at least $12 million.

With that brief outline, I would again express my thanks to our many witnesses for taking the time to attend this hearing. Future generations living in our city will reflect, I am convinced, upon the very important work we are considering today.

Thank you.

And for you who served as city commission chairmen, ex officio mayors, during this era and continuing the life of this San Juan-Chama water and the water that Albuquerque is entitled to, I think we will once again revisit that and see why you had such great foresight in purchasing this very valuable water for Albuquerque's future.

With that, I'd like to tell you how I will call the witnesses. I hope there is no one that has a time problem, but if you do, we'll take you out of order.

I would first like to call Steven Reynolds, New Mexico State engineer, and then I would like to call a panel of city leaders of Albuquerque, that would be Maurice Sanchez, Archie Westfall, Charles Barnhart, Sr., Harry Kinney, and our current mayor, David Rusk. I would like to call Robert Si Nanninga, general manager of the Middle Rio Grande conservation district. Then I would like to call our Corps of Engineers through our new Lt. Col. Julian Pylant, we're delighted to have you here today, and we're pleased that you're in our district. Then Robert Nordhaus, attorney for the Jicarilla Apache Tribe, Jesse Gilmer, State of Texas, Rio Grande Compact Commission.

Now, does anybody have any objection to that in terms of their own time?

If not, we'll proceed. Steven Reynolds, would you please take the witness stand?

Do you have prepared remarks, Steve?

Mr. Reynolds. Yes, I do, Mr. Chairman. I'll undertake to abbreviate them somewhat in the presentation.

Senator Domenici. All right. The entire statement will be made a part of the record, and you may proceed.

STATEMENT OF S. E. REYNOLDS, SECRETARY, NEW MEXICO INTERSTATE STREAM COMMISSION

Mr. Reynolds. Thank you.

Mr. Chairman, for the record, my name is S. E. Reynolds, I'm State engineer for New Mexico, and ex officio Secretary of the New Mexico Interstate Stream Commission.

Senator, section 1 of S. 620 would authorize the construction of a project for flood control in the vicinity of Albuquerque, in conformity with the report of the Board of Engineers for Rivers and Harbors, dated June 2, 1980.

As the District Engineer's May 1979, report relates, four Federal dams, Jemez, Galisteo, Cochiti, and Abiquiu, control flood flows coming into the reach above Bernalillo. However, there remain 1,100 square miles of uncontrolled drainage area below these dams which can produce flood flows in excess of the capacity of the existing levees. The report also reflects that the levees in the Albuquerque unit are still capable of providing protection against flows up to 42,000 cubic feet per second, that the Bernalillo reach provides protection against flows up to 30,000—pardon me—that the Corrales reach is protected against flows up to only 7,500 cubic feet per second. The reach from Albuquerque to Isleta is protected against flows of only 10,000 cubic feet per second. And that from Isleta to below Belen, protection is afforded from flows up to only 7,500 cubic feet per second.

The District Engineer's report recognizes that much of the area along Rio Grande outside the Albuquerque unit, from Corrales to Belen, has changed to an urban area, requiring a higher degree of flood protection than now exists, and estimates the total average flood damages within the study reach at $4,474,000 at October 1978 prices.

The plan recommended by the District Engineer's report would provide flood protection from the 270-year flood frequency, or 42,000 cubic feet per second, throughout the study reach, except for the Bernalillo segment, which is currently protected from flows up to 30,000.

The District Engineer's report, with the changes in the plan recommended by the Board of Engineers for Rivers and Harbors, demonstrates that additional protection in the Middle Rio Grande is badly needed, that the total average annual flood damage prevented by construction of the selected plan would be $2.8 million, and that the benefit-cost ratio would be 1.7.

Mr. Chairman, the New Mexico Interstate Stream Commission strongly supports the enactment of section 1 of S. 620.

Senator **Domenici**. Do you know of any serious objection to section 1, the levee improvement aspect of this bill?

Mr. **Reynolds**. I'm aware of none, Mr. Chairman.

Senator **Domenici**. So from our standpoint, we get it done as fast as we can get it authorized and appropriated, that's your recommendation?

Mr. **Reynolds**. With respect to the flood control project, that is correct, sir.

Senator **Domenici**. All right. Thank you.

Mr. **Reynolds**. Senator, section 2, as you've indicated earlier this morning, is also very important to the management of New Mexico's water resources. You recall, Senator, the San Juan-Chama project was authorized in 1962, by Public Law 87-483, to divert an average of 110,000 acre-feet annually from San Juan River tributaries in Colorado, through the Continental Divide into Heron Reservoir, the project's 400,000-acre-foot terminal storage facility on the east side of the Divide. Those contracting for project water accept delivery at the outlet of Heron Reservoir. The contractors have no carryover privileges, that is, if the contractor is unable in any year to take us water from Heron Reservoir and apply it to beneficial use, the water is left from Heron Reservoir and the contractor loses its entitlement to that water.

I've attached to my statement, Senator, a table listing those who have contracted for San Juan-Chama project water. There are at least seven of the entities listed who have an interest in the ability to store water accepted at Heron Reservoir for use in subsequent years.

In 1963, the city of Albuquerque contracted for project water. Under this contract, as amended in 1965, and I have a copy of that contract attached to the statement, also, Mr. Chairman. The city is to be furnished 17,700 acre-feet of water annually in the 10-year period, 1972 through 1981. In calendar year 1982, and each year thereafter, the city will receive 48,200 acre-feet under its contract.

Under that contract, the city must make annual payments to reimburse its share of the construction and the operation and maintenance costs of the project, whether or not it is able to take the water and apply it to beneficial use. As you indicated earlier, Senator, the 1981 payment amounts to about $924,000. Over the 50-year contract period, the cost will be about $30 per acre-foot of water taken by the city.

The city takes all of its water supply from the aquifer of the declared Rio Grande underground water basin. There is an intimate relationship between the ground waters and the surface waters in the Rio Grande Valley. The city's purpose in contracting for San Juan-Chama project water was to acquire a supply which could be used to offset the effects of the city's pumping on the flow of Rio Grande to avoid, as must be done under New Mexico law, the impairment of existing rights to the surface flow of the river.

It was well understood at the time of San Juan-Chama project authorization that it would be many years before the city needed all of the water it proposed to contract for to offset the effects on the flow of the Rio Grande, resulting from its withdrawals of ground water distribution in the municipal system. Consistent with the legislative history, Albuquerque's contract for San Juan-Chama project water, unlike other contracts for project water, permits such resale without further approval of the contracting officer.

At this time Albuquerque withdraws most of its supply from wells located several miles from the river. And for this reason, it will be many years before the full effects of those withdrawals are reflected in the flow of the river. Current projections indicate that it will be about 1985 before any of Albuquerque's imported water will be needed to offset the effects of its ground water withdrawals, and that the full amount of imported water that Albuquerque is contracted for will not be required for that purpose until about 20—2024. For this reason the city on August 6, 1979, entered a contract with the United States to store its imported water in Elephant Butte Reservoir.

In February of 1980, the Jicarilla Apache Tribe filed its first amended complaint in *Jicarilla Apache* v. *United States,* before the Federal District Court for the District of New Mexico. The city of Albuquerque, the Middle Rio Grande conservancy district, and the State of New Mexico, through its Interstate Stream Commission, are defendant-intervenors in that case. The Court entered its memorandum opinion and its judgment in the case on May 8, 1980.

The Federal district court's decision held that the city's contract to store imported water in Elephant Butte Reservoir was invalid and left serious question whether San Juan-Chama project water could be stored in any reservoir other than Heron. One of the reasons given for invalidating the contract is that there is no congressional authorization for the storage of Albuquerque's water in Elephant Butte Reservoir.

The ability of those contracting for San Juan-Chama project water to store that water in reservoirs other than Heron for subsequent use is crucially important to the best management of San Juan-Chama project water in the public interest.

The Department of Energy for Los Alamos has contracted for 1,200 acre-feet of project water, and at this time has about 5,500 acre-feet in storage in El Vado Reservoir.

Santa Fe and the Public Service Co. of New Mexico have contracted for 5,605 acre-feet annually of project water, and have about 19,000 acre-feet stored in El Vado Reservoir, and about 1,300 acre-feet more stored by exchange in reservoirs on Santa Fe River.

Senator DOMENICI. It would appear from what you're saying to this point, that storage of water by these contracting entities is a normal accepted practice of exercising their ownership right, is that a fair assessment of what you said?

Mr. REYNOLDS. That's a very fair statement, Senator. It's developed water, not Rio Grande system water; it certainly would appear that equity requires when they have bought and paid for it, that they be able to store it in any reservoir available to them for their subsequent beneficial use.

Senator **Domenici**. Let me, for my own understanding, ask you this question. In your opinion, if the city of Albuquerque had a lake, so long as it was in the basin somewhere, you and I just imagine where that might be, but it was theirs, and the city of Albuquerque built it, the city of Albuquerque maintained it, is there any question in your mind that they could store the water in that lake?

Mr. **Reynolds**. Not in my mind, Mr. Chairman. There might be some question under the Federal district court's decision whether they could store that imported water in any reservoir other than Heron. And that's one of the questions that S. 620 would clearly resolve and finalize.

Senator **Domenici**. Thank you.

Mr. **Reynolds**. As of January 1 of 1981, Albuquerque had about 29,000 acre-feet of its project water stored in El Vado Reservoir, another 41,000 stored in Abiquiu Reservoir. Under a loan arrangement all of the Albuquerque water that was stored in El Vado at the first of the year was very recently released for use in the Middle Rio Grande Conservancy District on a loan basis.

The district in the past has stored as much as 61,800 acre-feet of its project water in El Vado Reservoir.

Twining, Espanola and Los Lunas also have stored their project water in El Vado Reservoir in small amounts.

The complaint of the Jicarilla Apache Tribe apparently challenges the storage of San Juan-Chama project water in any reservoir other than Heron on the basis of the language of section 2 of Public Law 84-485, which authorized the Colorado River storage project in April of 1956. The language in question reads in part as follows, Senator:

> *Provided,* That with reference to the plans and specifications for the San Juan-Chama project, the storage for control and regulation for water imported from the San Juan River shall be limited to single offstream dam and reservoir on a tributary of the Chama River.

The tribe's complaint is not the first instance in which this challenge has been made, and there are at least three solicitors' opinions that seem to make it clear that the language quoted above does not prohibit the storage of contracted water, accepted at Heron Reservoir outlet, in other reservoirs. Copies of those opinions are also attached to my statement, Mr. Chairman.

Senator **Domenici**. Mr. Reynolds, let me ask you this: You have just told us that even though Albuquerque contracted to store in Elephant Butte, the district court ruled that that was invalid, but you then went on to explain that Albuquerque and other purchasers of San Juan River water have been storing water at reservoirs or lakes other than Elephant Butte.

Is it correct to assume that that decision carried to its logical conclusion would render those storages also invalid?

Mr. **Reynolds**. I think it's reasonable to conclude that all of those storages are subject to challenge under the reasoning of the complaint.

Senator **Domenici**. Have I drawn this legislation where I will fix all of those so there is no longer any question on any of them?

Mr. **Reynolds**. In my opinion, it would, Mr. Chairman.

Senator DOMENICI. I would hope that you would look at it very carefully and if we have to put everyone's name in it that's not there, we'll amend it so there will be no question in the future. We'll let Congress vote on that.

Mr. REYNOLDS. Mr. Chairman, I think certainly that challenge arising out of Public Law 84-485, 1956, is taken care of.

Subsection 2(a) of the bill, Mr. Chairman, would finally resolve and make unequivocally clear that San Juan-Chama project water acquired by contract with the Secretary of the Interior may be stored in reservoirs other than Heron.

Subsection 2(b) of the bill deals with storage of project water in the corps' Abiquiu Reservior. Under existing law and physical circumstances at Abiquiu Reservoir, the Corps of Engineers may store contracted project water in the unfilled sediment capacity of that reservoir. That capacity is currently about 63,000 acre-feet, of which 37,000 acre-feet is currently occupied by Albuquerque's imported water.

Preliminary studies indicate that with modest modification of the Abiquiu Reservoir spillway, or with an adjustment of the corps' operating procedures, 200,000 acre-feet or more of project water could be stored in Abiquiu Reservior without interference with the authorized flood and sediment control purposes.

Enactment of subsection 2(b) of the bill would give clear congressional authorization for such storage. Under the terms of that subsection, the owners of the imported water thus stored would be required, appropriately, to pay any increase in operation and maintenance cost attributable to the storage of this water. My understanding of the intent of the bill is that there would be no requirement for the reimbursement of construction costs unless additional construction is required to make possible the storage of imported water without interference with the authorized purposes of the Abiquiu Reservoir project.

Senator DOMENICI. Let me ask you about that. Is that logical? The reason I did that is, it seemed to me we ought to pay or any increase operation and maintenance, but that if the Government or some unit of the Government had already built the facility and it had the capacity to store, we weren't in any way adding any additional burden to the Federal Govenment; is that true?

Mr. REYNOLDS. Yes.

Senator DOMENICI. The additional storage doesn't do any damage to the facility; it was built to hold whatever its capacity is. We don't intend to exceed that?

Mr. REYNOLDS. Mr. Chairman, I find it not only equitable, but quite logical. I mean, it seems straighforward to me. The operation maintenance cost is the only increase in cost to the Federal Government, and that's what those storing water should be required to pay.

Senator DOMENICI. All right.

Mr. REYNOLDS. Enactment of subsection 2(c) of the bill would give clear congressional authorization for the storage of contracted San Juan-Chama project water in Elephant Butte Reservoir pursuant to contracts such as the one entered by the city of Albuquerque and the United States in August of 1979.

Subsection 2(d) would require that the San Juan-Chama project water stored in Abiquiu Reservoir or Elephant Butte be accounted as required by the Rio Grande Compact and the procedures established by the Compact Commission. The Compact Commission on May 3, 1974, adopted a resolution prescribing the accounting procedures for imported water stored in Abiquiu Reservoir, and on March 29, 1979, adopted a resolution prescribing the procedures for the accounting of imported water stored in Elephant Butte Reservoir. And copies of those resolutons are attached to my statement, Senator.

Considering only the 350,000 acre-feet that Albuquerque might accumulate in Elephant Butte Reservoir, there could be important public benefits from the storage.

Under the well-established principles for exchange of water, the water stored at Elephant Butte could be used to offset the effects of Albuquerque's groundwater withdrawals on the river during the nonirrigation season with no adverse effects on any existing water rights, including the rights of the three States under the Rio Grande Compact.

The water stored at Elephant Butte Reservoir would remain available for resale by Albuquerque.

The increased head on the turbines at Elephant Butte Reservoir would result in enhanced production of hydroelectric energy. There is ready market for such energy to substitute for energy currently produced by oil and and gas-fired generators.

The increase in the amount of water stored in Elephant Butte Reservoir would improve fish and wildlife habitat and substantially enhance recreation opportunities at that reservoir.

The defendants appealed the district court's judgment in *Jicarilla Apache Tribe* v. *United States of America,* on July 8, 1980, and argument was heard on May 14 of this year. I'm not competent to speculate on when or how the 10th Circuit Court of Appeals will rule. However, the need to store contracted San Juan-Chama project water in reservoirs other than Heron is certain and immediate.

The Interstate Stream Commission supports enactment of section 2 of S. 620.

Senator, in closing I'd like to say that I'm personally most grateful for your continuing intense interest and effective efforts in seeking solutions for New Mexico's water problems, and the opportunity to present to this distinguished subcommittee a statement on S. 620 on behalf of the State of New Mexico is very much appreciated.

Senator DOMENICI. Well, thank you very much. Let me ask you a couple of questions.

Do you believe that the corps and the Bureau have the reservoir capacity to store the San Juan-Chama water?

Mr. REYNOLDS. Yes. With controls that preserve accomplishment of the purposes for which those reservoirs were authorized.

Senator DOMENICI. With reference to the Jicarilla, let me ask if this is correct, I understand that they have a standby for the use of some San Juan-Chama water. Could you tell us about that? Is that true, and what was its derivation, and does that in any way create an inconsistency with the other contracting entities, including Albuquerque—is it consistent with them, and what is the status of that standby?

Mr. REYNOLDS. Senator, in substance, what you say is correct. As a matter of fact, the water involved is not San Juan-Chama project water, rather San Juan system water to which the State of New Mexico is entitled under the Upper Basin Compact.

In March of 1976, as I recall, the New Mexico Interstate Stream Commission recommended to the Secretary of the Interior that he reserve 26,000 acre-feet of New Mexico's entitlement on San Juan River, pending completion of studies of the feasibility of putting that amount of water to beneficial use on the Jicarilla Apache Reservation.

Studies were then carried out by the Bureau of Reclamation in cooperation with the Bureau of Indian Affairs, and I'm advised that at this time it appears that about 3,000 acre-feet of that total of 26,000 acre-feet might be put to beneficial use on the reservation for municipal and industrial purposes.

It seems quite clear that the development of an irrigation project on the reservation using that water, which is one of the principal thoughts in mind—in March, in 1976, is simply not feasible. The last costs I saw were somewhere in the neighborhood of $10,000 per acre.

Nevertheless, the Commission has not yet withdrawn from that recommendation to the Secretary, and so far as they know, the studies are still being wound up.

Senator DOMENICI. I fail to understand—and I'll ask you and certainly Mr. Nordhaus will make his position eminently clear, but I fail to understand how the Jicarillas can gain from a position that none of New Mexico's contracting entities for San Juan-Chama water can store other than in Heron. I don't understand wherein they gain. I understand that that's my responsibility to consider conflicting contentions with reference to water. If the circuit court confirms, and I don't know if they will or not, and the next logical step is that none of us can store other than Heron, I don't understand how Mr. Nordhaus's clients and my constituents, the Jicarillas, can gain. I just think they and all of us lose.

Could you just enlighten me?

Mr. REYNOLDS. Senator, I'm inclined to share the view. I'm obliged to point out that what would be achieved would be a greater amount of water in the Navajo, little Navajo streams, during the period before Albuquerque can take and use each year its full entitlement that it has bought and paid for. It's not clear to me that that would be a great advantage, but there would be more water in those streams for the reason that if Albuquerque were required to leave its water in Heron reservoir—its entitlement—that reservoir would fill. There are some 350,000 acre-feet in storage at this time, having a total capacity of 400,000.

So Albuquerque's next year's supply would virtually fill it, then. Of course, the diversions would necessarily be restricted, but there was no place to put the water, and there would for a time be more water in those tributaries of the San Juan River.

Senator DOMENICI. But if the theory is correct that those contracting entities own it and that at any time they decided they found a use for it, for example, if the city of Albuquerque decided in the next couple of years that they wanted to make some kind of contractual arrangement with the farmers in this valley, and if the economics were right, whatever period of time it had flowed in the other direction, you'd cut it off and turn it back this way, isn't that right?

Mr. REYNOLDS. Yes. And I think nobody challenges that. That certainly would be their right. For example, it might contract a substantial block of their imported water for a powerplant for a number of years. And they could immediately then take it.

Senator DOMENICI. There is no prohibition against any of them putting it to a beneficial use through recreation, is there? They can use it for recreational—create a lake, and if that lake has recreation benefits, that's a beneficial use for the city, isn't it?

Mr. REYNOLDS. I should think so, Mr. Chairman. Certainly that would be my view of it.

Senator DOMENICI. Well, I don't see anything here saying that it isn't.

Mr. REYNOLDS. Someone might raise the question whether they could store it. I find no basis for raising that question.

Senator DOMENICI. That would be the same argument that exists now, but it wouldn't exist if we did that.

Mr. REYNOLDS. That's right, Mr. Chairman.

Senator DOMENICI. I would appreciate it, unless you have a difficult schedule, if you could be available—I don't want you to sit here and listen to everybody unless you want to, but I might, at the end of this hearing, want to call you back to perfect the record or ask some followup questions. So I'll leave that to your judgment.

Mr. REYNOLDS. Senator, it's my plan to remain available throughout the hearing.

Senator DOMENICI. All right. Thank you very much.

Mr. REYNOLDS. Thank you, Mr. Chairman.

Senator DOMENICI. Now, what I'd like to do is to call former leaders, and ex officio mayors of the city of Albuquerque, and the current mayor as a panel.

Would Maurice Sanchez, chairman of the city commission—Maurice, what years were you chairman of the commission?

Mr. SANCHEZ. From 1954 to 1962.

Senator DOMENICI. Would you please sit here at our panel table, Mr. Chairman, and Archie Westfall, would you join him? When were you chairman of the commission?

Mr. WESTFALL. 1962 to 1966, I guess.

Senator DOMENICI. Mr. Charles Barnhart, Senior, when were you chairman, Charlie?

Mr. BARNHART. 1970 to 1971.

Senator DOMENICI. Harry Kinney?

Mr. KINNEY. 1971 through 1973.

Senator DOMENICI. And Mayor Rusk? I'm not going to ask when were you mayor. This is interesting. Where do I fit in that? Maybe I fit before Charlie.

I want to thank you all for coming down. It's great to have you. Thank you.

Mayor, you're going to do most of the testifying.

Mr. RUSK. All right.

Senator **Domenici**. Thank you, Archie, I know it's difficult for you to find time.

Thank you, Maurice.

All right. Maurice Sanchez, would you just identify yourself, and for the record, in case she didn't put it down when I was asking you, state when you served the city of Albuquerque, and then if you have a brief statement, you will go first.

STATEMENT OF MAURICE SANCHEZ, FORMER CHAIRMAN, CITY COMMISSION, CITY OF ALBUQUERQUE, N. MEX.

Mr. **Sanchez**. My name is Maurice Sanchez, as has already been indicated, I served during the period from 1954 to 1962. And it was along the latter part of my second term, I served two 4-year terms, 8 years as chairman of the city commission.

And it was during the latter part of my second term that this question of the San Juan-Chama diversion project came up, and involved the city of Albuquerque. I recall very distinctly when the former Governor, Bolack, was the head of a group known as the Acquilantes in this area, and they were lobbying very strongly for this legislation in Washington.

I remember how Senator Anderson was extremely interested in this project and sponsored this legislation in the Senate. We held several meetings with these gentlemen and with the many representatives of the Federal Government concerning the San Juan-Chama diversion project. It was made clear to us at that time by all of the people who were concerned with this legislation, that if the city of Albuquerque did not go along with a contract such as was entered into later on to put to municipal use the waters that would be diverted from the San Juan-Chama project, that the legislation would not go through.

They sent to us in that order for this legislation to go through, the city of Albuquerque was the main contracting entity, that had to agree to pay for the construction in the manner in which we later agreed to do.

We agonized considerably about whether or not we would commit the city to such a project, because of the tremendous cost as we viewed it at that time. While I don't have all of the figures in my mind, I know that these payments were on a graduated basis, and we may be paying a million dollars now, but I think that there comes a time during the period of this contract when we will be paying over $1½ million a year.

And when these figures were presented to us as members of the city commission, we naturally hesitated for some time as to whether or not we wanted to commit the citizens of this city to the payments that such a contract would call for.

But on the other hand, we knew and know now, even more so, but we knew then that we had to provide a water resource for the future of this growing city. And after considerable discussion and after considerable thinking on the part of not only the commissioners, but the staff—Steve Reynolds was always our counselor in many of these matters concerning water, where I consider him probably the foremost expert on water, not only in the State of New Mexico, but probably in the country.

And we decided after such consultations and after those discussions that we couldn't afford not to enter into a contract. And I think that now it has proven wise that we did what we did.

I was just reading an article just this past week in U.S. News & World Report, perhaps many of you have read it, the June 29 issue, which is just last week's issue, entitled, "Water: Will There Be Enough To Go Around?" And there the Director of the Water Resources Council, which is a Federal agency of which I am sure you are familiar, is quoted as saying that the water problem in this country, not just out here in the Southwest, West, is probably a more serious crisis, a more serious problem than the energy crisis in this country.

And he points out in this article the tremendous shortages that will exist unless certain measures are taken throughout this country of ours.

This is about all I have to say.

Senator Domenici. Well, let me just ask you one question. As you know, Maurice, when you first started and throughout most of your negotiation, I wasn't involved at all in government. I just started practicing law. But I had never heard it said quite as precise as you, but as I look at it, I assume it's right. We would not have had a San Juan-Chama diversion project, you were saying, had not Albuquerque been a participant. The Federal Government had established a formula for repayment to it of the costs of the diversion, and Albuquerque was the principal player in that, without that agreement. All of those who benefitted could not have made a sufficient commitment to the Federal Government for that extraordinary diversion project without Albuquerque. You remember that being told to you, is that what you're saying?

Mr. Sanchez. No question about it. It was told to us more than once. And, in fact, because we knew that this was probably the last important water resource for this community, that we went along with this commitment, because we didn't want to lose it. We were afraid that if it didn't go through at that time, that it might not ever go through.

Senator Domenici. I assume you are saying, then, you did not sign the contract when you were chairman?

Mr. Sanchez. I think it was signed the following year. I left in 1962, and I believe it was signed in 1963. Didn't you sign the contract?

Mr. Westfall. Right. 1963.

Senator Domenici. Let's move to Chairman Westfall.

Archie, thank you for coming.

STATEMENT OF ARCHIE WESTFALL, FORMER CHAIRMAN, CITY COMMISSION, CITY OF ALBUQUERQUE, N. MEX.

Mr. Westfall. I'm Archie Westfall, and I was chairman of the city commission from 1962 to 1966. I will not repeat much of the background that Maurice has given you, but I was briefed very closely about what had gone on previously when we took over the city commission.

There were two carryovers from the old group that also were very knowledgeable on this. I know that there was a lot of concern because of this money situation from the Federal Government that we would carry on with the intent that this be done.

Now, that legislation was finally approved in June of 1962, after I was already on the city commission, and then the final contract was approved and signed the following year, in 1963.

If I understand why we're here, there was never any question about the amount of water, but that it belonged to Albuquerque, to do with as it saw fit.

Senator DOMENICI. In other words, you owned it?

Mr. WESTFALL. We owned it. Owned it outright. It was Albuquerque's to store, because it goes back to the aquifer, it goes back there to use in later years.

Steve can tell you more about that aquifer than I can. But it's more important because understand at that time Albuquerque was growing at a tremendous rate; from 1950 to 1960, the city of Albuquerque doubled. You could see that it was lowering the water table.

So it was very important for the future of this community, and we thought we were right about this. Maurice was right, and we've got to have growth, we've got to have water to have this growth, and the water is the most important thing for Albuquerque for this growth.

Therefore, there was a lot of apprehension about this tremendous amount of money, because the water department wasn't taking in that amount of money. So there was a lot of apprehension.

But anyway, it was carried on, the contract was signed, and this if the first I knew that there was a question in our minds, and I don't know who raised that question, about storing the water in Cochiti. It was agreed, and the commission at that time held hearings with the people of the city of Albuquerque, and agreed that it would be a fine thing to store that water up there if it was not needed for recreational purposes because it would assist the whole of central New Mexico, and especially the Albuquerque and Santa Fe areas.

Senator DOMENICI. So at one point Albuquerque made an overt affirmative decision to store some of its water in Cochiti at that time?

Mr. WESTFALL. Yes. A disagreement was raised with the Bureau of Reclamation because they had to increase the size of the dam, as I remember, at that time.

Senator DOMENICI. Correct. Now, let me just get to one specific point. You've spoken of the aquifer and its replenishment. I'd like to just talk about some indicators of ownership.

You've already told me you wouldn't have signed an agreement unless you owned the water that you were paying for. I assume that's correct, isn't it?

Mr. WESTFALL. That's correct.

Senator DOMENICI. Any question in your mind when you were chairman and signed this, that if water started being available under the agreement, and you didn't need it, that you could sell it to a major utility that might help Albuquerque, or to any entity that you might want to contract with?

Mr. WESTFALL. Certainly.

Senator DOMENICI. There wasn't any question about that, was there?

Mr. WESTFALL. This was water from another watershed. It didn't belong on the already existing water agreements. It was pure and simple, Albuquerque water.

Senator DOMENICI. New water?

Mr. WESTFALL. New water to the amount that they took out of the Heron Reservoir.

Senator DOMENICI. All right. Thank you, Mr. Westfall.

Mr. Barnhart?

STATEMENT OF CHARLES BARNHART, SR., FORMER CHAIRMAN, CITY COMMISSION, CITY OF ALBUQUERQUE, N. MEX.

Mr. BARNHART. My names is Charles Barnhart, I was chairman during the year 1970–71. Prior to that time and even today, I believe, everyone recognizes that Albuquerque's future is tied directly to the availability of water. It has long been recognized in the Albuquerque area, I was active with the first design of professional engineers in the years 1951 and 1952 as their State president at that time.

The availability of water for Albuquerque was of great concern. During the year the San Juan-Chama diversion project was being studied, the New Mexico Society of Professional Engineers contributed greatly their talents toward that study. Everybody knew in New Mexico, they knew, that Albuquerque would not need water that was being purchased from Colorado River shed through the San Juan-Chama diversion project immediately.

We knew that this water would be excess water, and we also knew that if we did not use the water in any year when it was to be delivered, that it would be lost. If we didn't put it to beneficial use, it would probably at that point go on to the downstream users and be available for them.

There was never any question in my mind while I was on the commission and as mayor, but that Albuquerque owned the water outright. And second, the right to do anything with it they so desired.

During those years we negotiated with a number of entities to supplement domestic water supplies in New Mexico. For example, we negotiated with Rio Rancho Estates to supplement water supplies at that municipality. We negotiated with and I believe did lease water rights to Public Service Co. of New Mexico to supply Santa Fe with domestic water rights until Santa Fe perfected water rights of their own.

But all during this time we all knew, or we thought we did, that Albuquerque owned the water, that when the 48,000 acre-feet began to flow, we would need to store that water in available facilities, and we were in 1970–71, looking at Abiquiu, Cochiti, Elephant Butte, and the downstream—even further downstream reservoirs for use as storage for Albuquerque.

Senator DOMENICI. Mr. Barnhart, my recollection is that the first payment for the San Juan-Chama occurred in the first term of Chairman Kinney, is that correct?

Mr. KINNEY. I believe in late 1971.

Mr. BARNHART. Late 1971. We provided for it in the 1971-72 fiscal year budget.

Senator DOMENICI. All right. So let's make sure we have that on the record as part of the acts that you would be part of, the two previous chairmen have gone through the studying, thinking about, and worrying about the payments. Now, when the first payment came due, were you chairman of the commission?

Mr. BARNHART. Yes, sir.

Senator DOMENICI. There wasn't any hesitation on the part of the commission to pay what they owed the Federal Government? Did you put it in a budget?

Mr. BARNHART. Put it in the budget and it was paid on time.

Senator DOMENICI. Let's go to Harry Kinney?

Would you tell us when you served and what you remember about this?

STATEMENT OF HARRY KINNEY, FORMER CHAIRMAN, CITY COMMISSION, AND FORMER MAYOR, CITY OF ALBUQUERQUE, N. MEX.

Mr. KINNEY. Thank you, Senator.

I'm Harry Kinney, I was chairman of the city commission in 1971 through mid-1973, and I was mayor from 1974 through 1977.

First of all, I want to thank you for bringing these subcommittee meetings to Albuquerque, on a matter that's of utmost importance to the citizens of our city.

I for many years complimented those farsighted commissions who preceded us, who made this very difficult decision. We know that probably less than 1 percent of Albuquerque citizens really understand the situation in regard to our San Juan water resources, and as the mayor well knows, matters of great importance whether a restaurant is 250 to 350 feet from a school or church, probably 90 percent of the citizens know all about this, but this certainly has more far-reaching effects than almost any action that's been taken during the past 20 years. It has tremendous benefit not only to Albuquerqueans, but to people throughout the State of New Mexico.

As I look here, four former city commission chairmen are all from other towns and industrial ages of New Mexico, who because of lack of opportunities within those communities had to move to Albuquerque to find employment.

Where you're from does not have it, Maurice?

Mr. SANCHEZ. It didn't then, and I don't think it has now.

Senator DOMENICI. Where did Archie come from?

Mr. WESTFALL. Dexter.

Mr. KINNEY. Dexter, that's a big city. And Santa Rosa and Raton, which is from all four directions of New Mexico, but—and I think this water resource will continue to be valuable to people throughout New Mexico in providing jobs.

As you well know, because of your tremendous effort, the industries do come to Albuquerque because we have certain resources. And one of those resources is water and, of course, with the 2 or 3 years with electrical power situation being very difficult, our mayor has been very successful in bringing industries in here that they need not only water, but electrical energy. This will provide jobs for young people of northern New Mexico, and hopefully for people from the Jicarilla Apache Reservation and others throughout the State, as it has during the past many, many years.

As you recall, when we were first budgeting money for payment on the—for this water, at that time the city residents still had authority to conduct a referendum on increases in water rates. So it was a very difficult chore for us to keep the water rates within reason so they could not have a referendum, constitutional amendment was passed since then, that did remove that authority because it hampered our sale of bonds, knowing that sometime someone could have the referendum and reduce the cost of price of water, and we would not have the water to pay off our bonds. So it was very difficult.

Also, the issue was clouded by the issue of fluoridation that was passed to our citizens about the same time. In spite of those difficulties, the city commission did pass the money required. About that time we also formed a citizens committee called the water resources board, to provide broader input of the feeling of Albuquerqueans, and it served a very valuable purpose.

I was searching my personal files this week and came across a memo written by Conrad Gonzales, who is the chief water engineer, it was revised October 22, 1968, and I'd like to read just the first sentence or so and sort of give you a long feeling, and I'm sure you read it and were part of it at that time.

It says, "Mr. Steve Reynolds, State engineer, and I met on August 20, 1968, for the purpose of discussing the Abiquiu Dam project." This was—previously had been discussed between him, city of Albuquerque commissioners and city officials in late June, 1968. So here it is 13, 14 years later, and I might just point out one paragraph, one more paragraph. It says—this was discussing—it was before Abiquiu Dam was built, and at that time it was considered that it would only have 1,000 surface acres and have 31,000 acre-feet capacity. Of course, it expanded greatly from this time to when it was finally built.

Paragraph four says, "The city of Albuquerque is being involved because it will have excess water for a considerable period of time after the San Juan diversion project is completed." And it goes on to state just about what has been stated by Mr. Reynolds this morning.

Senator DOMENICI. I wonder if you would let us put that in the record, could we?

Mr. KINNEY. I certainly would. I think it's very important.

[The information referred to follows:]

REVISED - OCTOBER 22, 1968

PROPOSED

ABIQIU DAM PROJECT

Mr. Steve Reynolds, State Engineer, and I met on August 20, 1968 for the purpose of discussing the Abiqiu Dam Project. This had previously been discussed between him, City of Albuquerque Commissioners, and City Officials, in late June, 1968.

The project would be for the purpose of constructing a recreation lake at Abiqiu, which is approximately 50 miles northwest of Santa Fe. It would have 1000 surface acres, would require 31,000 acre feet of water to fill, and would require 3700 acre feet of water a year to replace evaporation losses. The project would probably be built by the U. S. Corps of Engineers with the State of New Mexico financing it as a function of the Game and Fish Department.

The San Juan-Chama Diversion Project authorization did not include any primary provisions for the use of any of its water for recreational purposes. This ommission was done purposely, since it was known that considerably more opposition would have been generated against the project if recreational use had been included. There are three irrigation projects which the State will not be able to build. Due to the lack of recreational provisions in the authorization, the State will not use all the acre feet that had been allocated for these projects. Some of the 15,000 acre feet will have to be re-allocated by the Interstate Streams Commission in November, 1968. However, if a purchaser of water such as the City of Albuquerque will have excess water pending the development of its full requirements, then it may in the interim, use this excess water for practically any purpose. This recreational proposal could be one of those purposes.

The City of Albuquerque is being involved because it will have excess water for a considerable period of time after the San Juan-Chama Diversion Project is completed. It is hoped by the State that this source of water can be purchased from the City and utilized for the project.

The position that Albuquerque enjoys, albeit at great expense, is especially well suited for the purpose of solving the State's problem. The benefits to the City will be several; among these is the promotion of good will in the northern part of the state, which needs economic stimulus, making an additional recreational site available to the state, and being of recreational value to the citizens of Albuquerque. The City will also hopefully recover a portion of the money which it will invest in the project. If this excess water is not used for projects such as this, it will, insofar as the City and the State are concerned, be wasted. It is believed by the State Engineer, the Bureau of Reclamation and myself that no modification of the contract between the City and the Federal Government is necessary. The City seems to have a very clear right to dispose of this excess water. The purchase price of this water will have to be negotiated between the City and the Game and Fish Department. It is believed that the parameters of value will be the price we will pay the government and the going price of water for irrigation purposes. These are approximately $28.00 an acre foot and $5.00 an acre foot respectively.

The period of City participation will be governed by the start of delivery of water by the project and that point in time when the City will need the 3700 acre feet for its own municipal uses. After that the State will conceivably have to purchase water rights from farmland for this purpose. The other factor is the fact that the City owes the Rio Grande Basin a water debt that was to be paid partly in the 1970's. However, the State Engineer's Office is now combining all the debts into one. By this means, the debt will become due about 1983.

A draft of the proposed contract between the City and the State, for the Abiqiu Project, has been written by the State Engineer but is being withheld until Mr. Ladd Gordon, Director of the Department of Game and Fish for the State of New Mexico, can present the draft to the State Game Commission for preliminary approval in late September next.

The contract is expected to have a provision that the 3700 acre feet for replenishing the evaporation loss of the lake can be returned to the City only when the City would require it for its prime use, i.e. municipal use. This would be limited to those uses which would be supplied from its utility system including industry connected to the system. The water could not be withdrawn from the State in the event the City felt it more advantageous to sell it to an industry not connected to the Albuquerque Water System. This restriction may alarm someone in concern for the City. However, the State feels it would need such a requirement to prevent its source of supply from being removed by the City in a case where the City might act capriciously or in an attempt to regain more of its $28/acre foot investment. This concern is of little importance if one realizes that the City will, for the next thirty or forty years, have a very large excess of water from the Diversion Project. The number of prospective customers for such excess water would be very limited by the existing economic and monetary factors relating to water rights, and the price that industry or agriculture could pay without making their venture unprofitable. The City would take a calculated risk that appears justified for the reasons explained in the fifth paragraph of this report.

An interesting thought has been brought out in the discussions of this project. This is the utilization of some of the City's excess water to provide another recreational pool at the Jemez Flood Control Dam. This would be possible, provided that the Federal Government concurs. The idea is feasible since the dam is very new and was designed with excess capacity so that the deposition of silt will not begin to infringe on the retention volume required for flood control until the 50 design year life of the dam approaches. The dam has 2891 surface acres and presently has approximately 40,000 acre feet of excess silt storage capacity. This recreational use could pose a problem for the City in the future in that the City might require this water previous to the time that the excess silt storage capacity of the dam is depleted.

I am thinking of the protest that would result when a recreational facility such as this would be terminated. It is believed that the City would probably attempt to obtain additional water rights so as to continue the recreational use. In this respect, it would be pleasant to think that the water problem and the silt problem would dovetail into each other. This would be the case in where the depletion of the silt storage capacity and the need by the City for the water would coincide.

Conrad Gonzales

Conrad Gonzales
Chief Water Engineer
Revised October 21, 1968

Copies to: R. Wilson, City Mgr. (6)
E. F. Hensch, Dir. of Public Works

Files: Underground Basin (2)
San Juan-Chama Diversion (2)

Senator Domenici. You're telling us that in 1968, Conrad, who was Albuquerque's version of Steve Reynolds, and I'm sure Steve would agree, for municipal expertise, we were fortunate to have Conrad Gonzales all those years. He's retired now, as I understand it. In fact, somebody suggested we should call him as a witness today.

Mr. Kinney. I called him yesterday and asked him, did he know about it. He says, "You know, the last 5 years, I haven't looked at a newspaper. I'm really retired," so he didn't know what was going on.

Senator Domenici. All right. But you're saying as early as that, and this letter confirms that it was being discussed, that excess storage was a problem, and we were looking at Abiquiu, then?

Mr. Kinney. And this also suggested that we look at the Jemez Dam, and indicated that space was available because of the settlement capacity that was built within Jemez Dam, and you know, we considered that for a long period of time because of its proximity to Albuquerque, and then many other factors made us decide that Abiquiu was probably the best decision.

Senator Domenici. Thank you very much, Harry.

Mayor, after everyone has thought through the fact that we're going to have to store the excess water, it fell on you to try to store it in Elephant Butte, I gather.

Mayor, welcome, would you give us the benefit of your testimony?

STATEMENT OF HON. DAVID RUSK, MAYOR, CITY OF ALBUQUERQUE, N. MEX.

Mr. Rusk. Thank you very much. I'm Mayor David Rusk, present mayor of Albuquerque, and have served in that capacity since December 1977.

I do wish to take issue with you on one point, Senator. There is no other version possible of Steve Reynolds.

Senator Domenici. I agree.

Mr. Rusk. He is unique and has been immortalized in best-selling novels and a soon-to-be released movie.

I'll have to find out, Steve, who plays you on film.

I would like to state that I am very conscious that the actions taken by the city commission in the early sixties, formerly executed under Chairman Westfall and implemented and supported by all of the leaders of city government since, are perhaps the single most important action the city of Albuquerque has taken over this 20-year period for our future.

As we look toward the future of our own community as we meet with new industrial prospects, we emphasize that Albuquerque most probably is better supplied with water than any other major city in the Southwest. Our ability to state that is based critically upon the San Juan-Chama water.

All of our actions through these years in terms of dealing with the San Juan-Chama water have not been couched in terms of immediate short-term advantage to the city, but the long-term needs of our community. And as Mr. Reynolds so clearly indicated, this water basically will allow us at a future point in time to continue to expand the water capacity or municipal system support a larger population, and to support new industry.

It may be that we will never physically use a drop of that water in our municipal system, although we continue to explore the possiblity of piping stored water from wherever it is stored, most probably to the northern reservoirs, to be able to physically use it. But basically we look toward this water as helping us repay our debt to the aquifer of the Rio Grande and allow us to continue to increase our pumping rights in future years.

At the same time we want to be good citizens and good neighbors to all interests in New Mexico. So over a period of years we have developed various arrangements to allow the immediate use of water we are receiving by a variety of interests, public and private in New Mexico, and we continue to offer that opportunity. We, in essence, loan water to an organization like the Middle Rio Grande conservancy district. There is a contractual arrangement.

But fundamentally, they are to repay us with future water that becomes available to them, major 40,000 acre-feet were provided to them through release of stored water in 1977, a very dry year, that has been since restored to us by utilization of excess runoff, that is one arrangement.

We sell water for the present in return for future water rights that we can put in effect at the time that we need to repay our debt to the Rio Grande. And we sell water outright for cash on short-term arrangements where we have the ability to cancel those contracts or otherwise limit sharply the time period of the commitment so that when we determine that we need the water for the city's primary purposes, that water is available and not tied up with contractual arrangements elsewhere.

We are building a growing program within the city of Albuquerque of utilizing the revenues from these sales to purchase water rights, although that is a mixed picture since that does result in the withdrawal sometimes of current agricultural land from those very desirable purposes.

I have a prepared statement for the record, I'd like to submit that.

Senator Domenici. It will be made part of the record, Mayor.

Mr. Rusk. I would like to say that I very much appreciate the expert testimony of Mr. Reynolds and my predecessors as leaders of city government. I find that what I say very often comes back to me in Federal court, and so I would like to be rather cautious in my own statements about current policy.

We have here today Mr. Paul Noland and Mr. Jim Gill, the director and the deputy director of our water resources department. Mr. Gill, in particular, has worked for many, many years with this issue.

We have Mr. Nick Estes, Mrs. Barbara Stevenson of our city attorney's office, and there will be occasions to which I would like to defer any questions you might have to them.

Senator Domenici. Mayor, before you proceed, let me ask you, what you've just described to me indicates that the right itself to store is very valuable, is that correct?

Mr. **Rusk**. It is. The essential part of the planning that has gone on for 20 years to allow us to assure, No. 1, that we have a physical quantity of water available at a point in time, or No. 2, that we have a physical quantity of water available on standby for arrangements that we can make with other current users, but without giving up the right of ownership to that water, without giving up, in essence, the "bird in the hand" that we have, as opposed to a hypothetical, "two in the bush" in the future.

Senator **Domenici**. Did you have anything further, Mayor?

Mr. **Rusk**. No. I would like to let my statement, for the record, stand as more of a technical testimony and just respond to questions or calling upon our staff to respond to questions.

Senator **Domenici**. All right. What I'd like to do, then, if you would help me, I know you're very busy, but I would very much like your technical people to stay with me in case I need to ask some followup questions.

Mr. **Rusk**. Yes, and I, myself, am interested in staying for the morning.

Senator **Domenici**. We ought to be through by noon. If you could, I would appreciate it.

I want to call Steve Reynolds for one quick question.

Thank you all very much.

Could I ask you, Steve, in your opinion, is storage and the possible uses that the mayor just described in terms of sale, or a loan of water by the city, do those qualify as beneficial uses?

Mr. **Reynolds**. Yes, Mr. Chairman.

Senator **Domenici**. No question about that?

Mr. **Reynolds**. No question in my mind, Mr. Chairman.

Senator **Domenici**. Thank you very much.

Mr. **Reynolds**. Mr. Chairman, I might say that not everybody would necessarily agree.

Senator **Domenici**. Well, I didn't and that's why I asked you.

Mr. **Reynolds**. I invite attention to the court's opinion.

Senator **Domenici**. All right. Si Nanninga? Mr. Nanninga, would you state your full name and what capacity you are here, please, for the record, and then give us your testimony.

STATEMENT OF ROBERT SI NANNINGA, GENERAL MANAGER, MIDDLE RIO GRANDE CONSERVANCY DISTRICT

Mr **Nanninga**. My name is Robert Si Nanninga, and I am the general manager for the Middle Rio Grande conservancy district. I have a brief prepared statement that I would like to read into the record. I have a few copies of it here if you might desire them.

Senator **Domenici**. Proceed, please.

Mr. **Nanninga**. Mr. Senator, I want to personally express my appreciation for your concern and effort that you are taking to make the maximum use of the water resource that we have in our State of New Mexico. I think it is very commendable.

The Middle Rio Grande conservancy district, the local sponsor of the proposed Federal project addressed in Senate bill 620 relating to flood protection and channelization in the Middle Rio Grande Valley has gone on record endorsing the report of the Board of Engineers for Rivers and Harbors, dated September 14, 1979.

Since the implementation of the Flood Control Act of 1948, that initiated the Federal Government's participation in the channelization improvement of the Middle Rio Grande Valley and the improvement of the levee system protecting its more populated portions, there has been a tremendous population growth.

Many of these newly populated lands are even more exposed to flood than they were at the earlier date. The aggradation of the river (especially true between Isleta and Belen) has raised the river further—raised the riverbed further, diminishing the levee protection.

Section 1 of the Senate bill 620 addresses the need to provide the same level of flood protection to these lands as do similarly developed properties in the immediate vicinity of Albuquerque. A compromise has been effected by the local governmental units short of the project flood level as originally proposed. However, the district has supported this program and feels it is financially feasible.

The proviso beginning on line 8, page 1 of the bill directing the attention to the corps to the need for channelization of the river to increase the flood protection level is particularly acceptable to the board of directors of the Middle Rio Grande conservancy district. The high spring runoff of both 1979 and 1980 created numerous septic tank problems and even affected farmland as the water from the riverbed, which is higher than the adjoining lands, seeped underground. The riverside drains adjacent to the levees were under severe pressure from the river. Well over $1 million was spent to address particular problems that arose as water from the river seeped through the levee, causing serious sloughing of the banks of the riverside drains.

And material placed on the levees taken from the center channel of the river will provide an optimum benefit. In my opinion, the local interest is directed more toward the channelization approach to provide flood protection than it is in raising the levees. The combination of the two as proposed by the bill is most appropriate.

Section 2 of the bill relating to the need to provide a degree of flexibility in the management of the San Juan-Chama water resource is very important. Regulations, as the bill proposes, should assist and help improve local efforts to make maximum utilization of our critical water resource. Where capacities of reservoirs are sufficient for dual uses, it would appear economically expedient to provide for as much use as can reasonably be incorporated.

The Middle Rio Grande conservancy district supports the utilization of the use of Abiquiu and Elephant Butte reservoirs for the storage of San Juan-Chama project water. Though not a part of this bill, the district has a definite interest in there being flexibility in the operation of Cochiti Dam to improve its delivery of stored water to its irrigators in the middle valley.

In summary, as the general manager of the Middle Rio Grande conservancy district, the local sponsor for flood control measure proposed by Senate bill 620, and an active solicitor for the authorization that provides for methods through which San Juan-Chama water may be stored in existing reservoirs for future use, wish to go on record in support of Senate bill 620.

Senator **Domenici**. Mr. Nanninga, how many people in the area does the flood control district protect? Give us some dimension for the record of the Middle Rio Grande.

Mr. **Nanninga**. The district covers the valley of the Rio Grande, from Cochiti Reservoir to the Bosque Del Apache Game Refuge at the south, a distance of about 150 miles. The number of people living within the district I have not seen the figure for, but there are, I would say, 45,000 to 50,000 properties identified in the records of the district that live within the area. Three or four people per residence would be, I'd say, a quarter of a million people, at least.

Senator **Domenici**. Is your district prepared to provide the lands and easements and rights-of-way for the levee project?

Mr. **Nanninga**. This is our responsibility, and I understand we are ready for that.

Senator **Domenici**. Does the Middle Rio Grande conservancy district, from time to time, borrow San Juan-Chama water from Albuquerque?

Mr. **Nanninga**. Yes. We've done it on three different occasions, to my knowledge, and this year's a very critical water year for irrigators in the valley. We have borrowed, I think, in the vicinity of about 30,000 acre-feet this year already.

Senator **Domenici**. Does that borrowed water have a useful impact on farmers and other users in your district?

Mr. **Nanninga**. Very definitely. Had we not had that water available, I would say that our farmers would have been hurting very seriously in the production of their crops already this year. We would have had dried up crops existing in an irrigated valley if we hadn't had that water available.

Senator **Domenici**. So I take it, you would agree that loss of San Juan-Chama water would have a significant adverse affect on the entire valley that you serve?

Mr. **Nanninga**. I feel very definitely that way. Each year is a little different from any other, and you don't have a duplication situation. And if you don't have some flexibility in being able to accumulate when you have a surplus and have it ready for when you're deficient, why, you're in trouble with water or any other resource, as far as that goes.

Senator **Domenici**. So I take it, when you use the word flexibility, and I commend you for it, it summarizes what we're talking about here, using every aspect of ownership so that this water is as flexible as the city of Albuquerque wants to make it. You include in that, maximum ability to store that water when they don't need it, is that one of the tools you're describing?

Mr. **Nanninga**. I feel it's essential to be able to store your water when you accumulate a little in advance, why, it's like money in the bank. If you can keep it there and have it for later years.

Senator **Domenici**. Now, Mr. Nanninga, how long have you been active in water problems in this area?

Mr. **Nanninga**. I was a teenager when I first rented some farmland and farmed it in the middle valley in 1933.

Senator **Domenici**. How long have you been active in one way or another in either policymaking or management position?

Mr. **Nanninga**. Well, I've had the good fortune of being involved with farm organizations, and I would say my active participation in water problems began about 1950. I've been manager of the Middle Rio Grande conservancy district or assistant chief engineer in employment of the district since 1969, with the exception of a year or so in between.

Senator **Domenici**. I'd like to ask you now, Mr. Nanninga, in your opinion, if Albuquerque and the other contracting entities for Rio Grande water were not given the right to store their unneeded water on a temporary basis, would that have a significant adverse affect on the entire Middle Rio Grande Valley?

Mr. **Nanninga**. Well, I think it would affect the entire valley, and I might just make this observation, that we in the process of utilizing the water that is stored at the present time, we have consumed the city's amount that was stored in El Vado. We're in the process of using water that the city of Santa Fe and the—the Los Alamos group has stored up there now. "We're Heard," I think they're called.

We're in the process of utilizing their water which is stored in El Vado. So if these other entities that have contracted for San Juan-Chama water were not able to store water, if they don't need it right now, there's a definite need for it some place. It's just maybe the timing, and if you don't have the storage capacity or capability, it's going to work a hardship on other entities who at this present time may not even be aware of the stored water situation.

Senator **Domenici**. I want to just change the subject with you, and I don't even need this in the record.

[Discussion off the record.]

Senator **Domenici**. I have nothing further, Mr. Nanninga. Thank you so much for giving us your time today.

Lt. Col. Julian Pylant, District Engineer, U.S. Army Corps of Engineers.

Colonel, we're delighted to have you here. I think you know that our congressional offices had a wonderful working relationship with your predecessor, Colonel Roth. I don't think we have to tell you that he was one of the most significant contributions that the Federal Government has made through the corps to this area in many years. And I'm not reluctant to say that. That only means that you follow in some big footsteps, but we look forward to working with you, and hopefully you'll have the same kind of success in working with our people.

I think his fortė was that he very much understood participation by people, and he worked with them and resolved issues instead of standing pat and causing confrontation to delay on all sides.

I don't know you, but I look forward to working with you, and this is my first occasion to hear from you. I have your statement, and I would very much appreciate it if you could summarize it, but I'll just trust your judgment. In any event, it will be made a part of the record.

STATEMENT OF LT. COL. JULIAN E. PYLANT, DISTRICT ENGINEER, U.S. ARMY CORPS OF ENGINEERS

Mr. **Pylant**. Senator Domenici, I certainly appreciate the opportunity to present testimony, and I'll add that I certainly am aware and appreciate the opportunity to follow someone like Colonel Roth in this job. I've been in the district now for a little over 2 weeks and am well aware of the kind of staff he has, the kind of support that's here in the district, and certainly the relationship that we've enjoyed and look forward to continue to enjoy with your office.

Senator DOMENICI. Let me ask you a question. I don't know that many of our people know this, and we have some very prominent opinionmakers in this small audience here. As I understand it, the Corps of Engineers has a national policy of rotating directors very frequently. How long can you stay in Albuquerque, and how long was Colonel Roth here? Is that 2 years, then you've got to rotate?

Mr. PYLANT. Sir, that's 3 years.

Senator DOMENICI. Three?

Mr. PYLANT. And that's standard policy. A district engineer will not serve for longer than that. And along that change at the time I've come in, now, the designation district engineer people will start seeing another title or a change to that. The commander of the district that's part of a corpswide change as the corps is involved to a major command, what we call a ma-com, that change that people will see that I am corresponding with is just company incident.

Senator DOMENICI. All right. Proceed. Thank you very much.

Mr. PYLANT. Sir, this bill contains three items that directly relate to the Corps of Engineers and the Albuquerque district; authorization to improve levees in the vicinity of Albuquerque, the storage of 200,000 acre-feet of San Juan-Chama project water in Abiquiu Reservior, and the authority to expend an additional $300,000 for the recovery of cultural resource data at Santa Rosa Lake.

With your permission, I will submit my full written statement for the record and summarize from it during this section.

First, the flood control project, which would be authorized by the bill is the Middle Rio Grande flood protection project. The study area, as indicated earlier, contains about 110 square miles of flood plain, has about 150,000 residents, and $2½ billion worth of property in the flood plain. The threat from flood stems from an approximate 1,100 mile—square-mile uncontrolled drainage below Cochiti, Jemez, and Galisteo Dams.

As indicated, flows from summer storms can exceed the capacity of the existing levee system, and current protection ranges from as low as 7,500 c.f.s. channel capacity at Corrales and Belen, to 42,000 c.f.s. capacity at Albuquerque.

Alternative structural solutions were considered in the study. These include a series of tributary dams in the contributing watershed area, dredging and improving the Rio Grande Channel and raising and rehabilitating the levees, then combinations, of course, of these measures.

They include flood plain excavation and flood-proofing. After analyses and evaluation of the alternatives, the report was completed by the Albuquerque district in September 1979. Subsequently, the recommended flood protection plan that was contained in the Board of Engineers for Rivers and Harbors report proposed raising and rehabilitating 63.2 miles of the existing Rio Grande levee to protect the towns of Corrales, Mountainview, Los Lunas, portions of the Isleta Indian Reservation, and Belen. These would all receive protection up to 42,000 c.f.s. flow in the Rio Grande.

Senator DOMENICI. That's all cleared now in terms of the chain of command?

Mr. PYLANT. It is through the Board of Engineers for Rivers and Harbors, and that's as far as it goes in corps channels.

As indicated in Senate bill 620, the total Federal first cost of the recommended plan in 1980 dollars would be about $33,224,000. The local obligation would be about $1,776,000. The average annual cost over the life of the project is about $2.74 million, and the average annual benefit is about $4.03 million. This yields a benefit-to-cost ratio of approximately 1.5.

You heard some slightly different figures earlier, and that just relates to the time of the evaluation, different people are talking to.

Senator DOMENICI. Right.

Mr. PYLANT. Sir, next, I'd like to address section 2(b) of Senate bill 620, which would authorize the Chief of Engineers to enter into agreements for the storage of San Juan-Chama water in Abiquiu Reservoir.

House Document 243, 81st Congress, proposed the construction of several dams, and the Rio Grande and Bluewater Floodways. Congress, by the Flood Control Act of 1948, approved the comprehensive plan of improvement for the Rio Grande Basin as set forth in House Document 243, and with the exception of Chiflo Dam and Reservoir, those projects were authorized for construction.

The Chamita project, as it was originally planned, provided for a high dam to be constructed at river mile 5 on the Rio Chama. However, during the preconstruction planning stage, a superior substitute plan was developed. This provided for a low dam located at about the original site, and a high dam located near the town of Abiquiu.

The substitute plan was approved by both the Senate and House Appropriation Committees during fiscal year 1955. Construction of the dam for the authorized purposes of flood and sediment control only began in Abiquiu in 1956. It was completed and placed in operation in February 1963. Water supply is currently not an authorized purpose of that project.

The most economical design for the Abiquiu Dam consisted of building the dam much higher than required to contain the sediment and flood control pools, which would only have totaled about 575,000 acre-feet. If proved less costly to store the spillway design flood to assure structural integrity of the dam is lieu of excavating a large enough spillway through rock to pass the same flood, hence, the excess storage capacity.

Consequently, under the original design, about half of the reservoir's capacity of slightly over 1.2 million acre-feet was to assure that the dam would not be overtopped. Recently, the possibility has been raised that part of this storage capacity could be used for other purposes, in particular, for temporary storage of allocations of San Juan-Chama diversion water that is in excess of the recipients' needs.

Inadequate drainage and limited channel capacity downstream of the project, the Congress, by Senate Resolution of December 5, 1975, requested the corps to review the report that's entitled, "Rio Grande and Tributaries, New Mexico," in order to determine, and I'll quote:

> Whether any addition or modification should be made to the recommendations contained therein, with particular respect to the existing Abiquiu Dam in the interest of flood control, water supply, irrigation, recreation, fish and wildlife enhancement, power, and other related water and land resources needs.

Now, as indicated earlier, the majority of the 502,000 acre-feet of flood control storage in the Abiquiu project is to control snowmelt floods. Floods of this type are predictable, thus water stored in the flood pool for conservation or other purposes can be excavated during the winter and early spring to make room for anticipated snowmelt runoff. This type of operation would allow the storage of San Juan-Chama waters as proposed in Senate bill 620, and it would not impact currently authorized purposes of flood and sediment control.

The storage of San Juan-Chama water in Abiquiu has the potential to be extremely beneficial to the water needs of New Mexico. The banking, so to speak, of these waters offers the potential to satisfy short-term critical needs, such as the current irrigation water storage in the middle Rio Grande caused by poor run of snowfall. It also provides opportunities to satisfy short-term water needs to end the 25-year range to new industrial users. The storage of these waters would also provide for hydropower development and increased recreation opportunities. Two, it would extend the period until the San Juan-Chama water users will have to seek additional sources.

Shifting to the third aspect of this proposed bill, the bill would authorize the expenditure of funds in excess of the 1-percent limit that's permitted by public law to recover cultural resources data at Santa Rosa Lake. A total of 250 archeological sites have been identified during field studies by the National Park Service and Southern Methodist University. Of these, 130 have been determined to be eligible for the National Register of Historic Places. These sites range from 5,000-year-old campsites and rock shelters, to the 18th and 19th century remains of European settlers and ranchers.

To date, the corps has spent about $246,000 to obtain data from 70 of the sites, and an additional $153,000 from one quite extensive site known as Site 48.

We've expended all the funds within the 1-percent public law limit.

The Historic Preservation Office of New Mexico, the U.S. Advisory Council on Historical Preservation, and the Corps of Engineers, Albuquerque district, concur in the existing memorandum of agreement for cultural resources investigations at the lake, and the plan would call for additional work on the remaining 60 sites, in the amount of $300,000.

That concludes my testimony, sir.

Senator Domenici. Well, thank you very much, Colonel. It is your testimony, then, that there is storage space for Albuquerque water at Abiquiu, is that correct?

Mr. **Pylant**. That is correct, Senator.

Senator **Domenici**. Do you believe from what you know of the district, that the storage at Abiquiu would prove beneficial to the people of the Rio Grande Valley?

Mr. **Pylant**. I think it is clear.

Senator **Domenici**. Let me change direction. I hate to do this to you, but do you have any current information as to what's being done to assure the continued existence of the Albuquerque corps district office?

Mr. **Pylant**. I feel quite confident that there's no concern about the continued existence of the Albuquerque district office. When I first was assigned here, I read in the paper and, of course, was sitting in Washington as many of these type things were discussed, and became concerned. I don't have similar concerns at this point.

Senator **Domenici**. You became concerned that you might be assigned to a Shell operation?

Mr. **Pylant**. Yes, sir. I certainly did not look forward to the prospect of coming here, say, and I'm here to close this out, and I'm confident that will be the case.

Senator **Domenici**. Well, I won't ask you the next question, because while I'm equally confident, sometimes I get surprised. The problem isn't really the office, though, it's the staff level, and that's why I asked about Shell. I hope you know—not that you make the final decisions, and I can't hold you to any of it, I will hold some much higher than you responsible, but it's the staffing level, so that we can continue to function in the capacity that you're functioning that concerns me.

I really don't think it's fair to ask you what you think about that. So your statement will be made a part of the record, and unless you have something very important, I'd appreciate it if you would stay, also. I may not need you or your people for followup questions, but perhaps when we're finished with the prepared testimony, I might have a few technical questions.

Can you stay until 12?

Mr. **Pylant**. Yes, I'm prepared to do that and intended to.

Senator **Domenici**. Very well. Thank you very much, Colonel.

Mr. **Pylant**. Thank you, sir.

Senator **Domenici**. All right. Our next witness is Robert Nordhaus, attorney for the Jicarilla Apache Tribe.

Mr. **Nordhaus**. Senator Domenici, I would like to present Leonard Atole of the Jicarilla Apache Tribe, who would also like to make a statement.

Senator **Domenici**. Of course. He wasn't here when I came in. Let me welcome him.

Nice to have you.

Mr. **Atole**. Thank you, Senator.

Mr. **Nordhaus**. Senator, if I may make a preliminary remark here.

Senator **Domenici**. Sure.

STATEMENT OF ROBERT J. NORDHAUS, GENERAL COUNSEL, JICARILLA APACHE TRIBE

Mr. **Nordhaus**. We appreciate the opportunity of being heard. I did want to state that the position of the tribe in litigation and elsewhere has been that the tribe has objected to diversions through the San Juan-Chama facilities of water in excess of that that can be beneficially used in accordance with the term utilized in the New Mexico Constitution and the Upper Colorado River Compact and other compacts.

The tribe has taken no position on storage in Abiquiu, and the tribe has not objected to any specific storage, except that in Elephant Butte, and the president and I will explain why the tribe has specifically objected to storage in Elephant Butte.

President Atole will explain to you the concerns of the Tribe and also explain what has happened to the waters of the Navajo River as a result of the diversion.

Mr. **Atole**. Good morning, Senator.

Senator **Domenici**. Good morning.

STATEMENT OF LEONARD ATOLE, PRESIDENT, JICARILLA APACHE TRIBE

Mr. **Atole**. For the record, Mr. Senator, I'm Leonard Atole, president of the Jicarilla Apache Tribe. I am speaking to express the concern of my people, and about the effect of the San Juan-Chama diversion on the flow of water in the Navajo River, which is the only live stream on the Jicarilla Apache Reservation. The river runs through the northern part of the tribe's reservation which is just south of the Colorado border, west of the towns of Chama and Lumberton. The river supplies water for the town of Dulce, which is the headquarters of the tribe, and a great majority of tribal members live in Dulce, also many non-Indians who serve the reservation and who are involved in oil and gas development and other activities. The tribal government at Dulce serves the reservation area with police, fire, road maintenance, and other services which are not available from other governments. The Dulce school system serves Indians and non-Indians in the area. The tribe has applied for an FHA loan for a regional medical center facility which will serve all of the communities in the area and will be the only such facility between Farmington and Santa Fe. It will be sponsored and financed by the tribe.

The San Juan-Chama project was implemented without any consideration of future needs of the Jicarilla Apache Tribe. The tribe was assured that the project would not affect the tribe's future water needs, but that the project has seriously affected the tribe's present uses of water and it has reduced the flow of the Navajo River so that it will be very difficult for the tribe to implement future projects for irrigation or industrial development.

The San Juan-Chama project has reduced the average stream flow in the Navajo River at the reservation boundary to less than one-half of the previous flow. During the years 1975 through 1980, the project diverted over 323,000 acre-feet of flow of 546,000 of the Navajo River, and over 60 percent of the flow of the river.

The San Juan-Chama diversions have not only seriously affected the tribe's municipal water supply but they have effectively ruined the fishing in the Navajo River which was a very important tribal enterprise. Fishing income for the tribe, which was over $33,000 in 1972, was reduced to $16,882 in 1974, and $12,934 in 1980. The operation of the diversion structures by the Bureau of Reclamation gave rise to another serious problem. Sediment deposits accumulated behind the diversion structures and the Bureau found it necessary to remove these deposits by sluicing. This resulted in widespread damage to irrigation structures and ditches as well as to the tribe's municipal waterworks. The sediment also filled holes in the river and contributed to the adverse effect of high temperatures in destroying fish life on the river.

The Jicarilla Apache Tribe intervened in the case of *Schutz* v. *Stamm,* in the Federal district court in Colorado, a suit brought by Colorado irrigators and farmers on the Blanco and Navajo Rivers, complaining of the operation of the San Juan project by the Bureau of Reclamation.

The court found that the operation of the San Juan-Chama diversion damaged the tribe's waterworks and the tribe's fishing. The court said on page 8 of its opinion, which we are filing with this statement, "The turbidity, color, taste, and odor have required the use of chemicals and frequent cleaning of the tribe's waterworks."

The court also found that sport fishing in the Navajo River was an important source of revenue to the tribe, and the tribe had done no stocking since 1975, because of the poor quality of the water and reduced stream flow. The court also said that after the diversion dam was built on the Blanco, fish began dying and in 1973, a livebox test was conducted on the Blanco, and the fish died within 24 hours. There had been no stocking of the Blanco since 1975. The Navajo has only been stocked once since 1975. The court stated that it was inescapable from the evidence at the trial that fish and aquatic life in the Navajo and Blanco Rivers were adversely affected by the dams and their operation.

The decision of the Colorado court is filed with our exhibits.

Our attorney, Mr. Nordhaus, will make a statement about the concern of the tribe about waste of water through storage in Elephant Butte Dam. It is our position that no contractor for San Juan-Chama water should be permitted to waste San Juan River water and at the same time inflict damage upon others who have rights to the water, either in the San Juan River Basin or in the Chama or Rio Grande Valley.

The tribe has no intention of depriving Albuquerque of water to which it is entitled to under the San Juan-Chama Act or as long as Albuquerque can use it, but storage in Elephant Butte is not the answer. We think, rather than permitting this storage, Congress should consider deferring Albuquerque's payments and permit the use of water elsewhere until Albuquerque can use it.

Mr. Nordhaus will explain the tribe's position in the case of *Jicarilla Apache Tribe* v. *City of Albuquerque.*

I thank you for your consideration.

Senator DOMENICI. Thank you very much. Mr. President. Before Attorney Nordhaus speaks, could I just ask you, in your last paragraph, you said:

> The tribe has no intention of depriving Albuquerque of water to which it is entitled to under the San Juan-Chama Project Act or as long as Albuquerque can use it, but storage in Elephant Butte is not the answer.

I take it, however, that you really are saying that if Elephant Butte isn't the answer, neither is Abiquiu, is that correct?

Mr. ATOLE. That's correct.

Senator **Domenici**. You are really saying they shouldn't store it anywhere because your position is that they should only use it if they actually need it, is that correct?

Mr. **Atole**. Right.

Senator **Domenici**. All right, Mr. Nordhaus?

STATEMENT OF ROBERT J. NORDHAUS, GENERAL COUNSEL, JICARILLA APACHE TRIBE—Continued

Mr. **Nordhaus**. Senator Domenici, I appreciate the thoughts of the previous chairmen of the city commission, and Mr. Steve Reynolds, who I've known for a number of years.

I was quite active in working on the San Juan-Chama project back in the late forties with Tom Bolack, and I certainly am in sympathy with the objectives of the project. I have been working with Steve Reynolds since about 1946, when we did the first commercial cloud seeding in, I guess, the United States. We dropped dry ice over the Sandias. Steve had two buckets of ice on his lap, and Clark Carr took an older airplane over the crest and the dry ice hit the people working on a T-bar lift down below. But there was snow on the mountain the next morning.

Senator **Domenici**. Were you already associated with the Sierra at that point?

Mr. **Nordhaus**. Oh, yes, since 1937.

Senator **Domenici**. You didn't like them being hit, then, I take it?

Mr. **Nordhaus**. No, sir.

Senator **Domenici**. Did it cause any snow?

Mr. **Nordhaus**. The paper had our pictures on the front page the next morning, and the mountains were covered with snow, but the reaction was about 12 hours delayed.

Senator Domenici, I'm Robert Nordhaus, I have been the attorney for the tribe on claim matters for over 20 years. As President Atole has stated, the tribe is entirely dependent on the Navajo River for its domestic and municipal water and for water for irrigation and future industrial uses.

As Mr. Reynolds stated, the Secretary of the Interior, with the full recommendation of the Interstate Stream Commission, reserved 26,000 acre-feet of water out of the San Juan River system for the tribe, subject to feasibility of use. Mr. Reynolds indicated that the study of the Bureau of Reclamation showed that the tribe's project was not feasible. We disagree with that.

The study by the Bureau of Reclamation was not complete. The Bureau apparently in its cost figures charged the tribe for a tunnel to bring water from the east fork of the San Juan, for about $75 million, which we think is an unfair cost to the tribe, but be that as it may, the tribe is still working on that project, and that's one of the major objectives of the tribe, is to secure an irrigation project which will provide employment and future sources of revenue for the tribe.

As the president stated, the U.S. District Court, District of Colorado, found in *Schutz* v. *Stamm,* that the tribe's rights in the Navajo River had been severely damaged as a result of the diversion.

We have attached this opinion of the Colorado court, which we think is a very important opinion, and indicates that the San Juan diversion project has been extremely damaging to the Colorado water users on the Blanco and Navajo stream, partially because of the—that the bypasses provided by statute were insufficient to provide for irrigation, as well as to maintain the efficiency and aquatic life. And I think that the bypass minimums which Congress approved in exhibit D-2 to the project act, really are insufficient to carry out the congressional intent.

I think, Senator, you will recall that originally there were planned several storage dams above the diversions. One of the objectives which we have is to persuade the Congress and the Bureau of Reclamation that eventually storage will be required above these diversions. And also, that to actually preserve the Navajo and Blanco Rivers, which are very important rivers, that a diversion should be implemented from the east fork of the San Juan. That was part of the original San Juan-Chama project.

The tribe filed suit against the Secretary of the Interior in 1975, asking that the Secretary be prohibited from diverting more water than could be beneficially used on the Chama-Rio Grande system. This case went to the Supreme Court on other issues and it was referred back to Judge Payne's court in 1979. At that time, Albuquerque had entered into a contract with the Bureau of Reclamation to store its surplus water in Elephant Butte. So the focus of that case was limited to the contract between Albuquerque and the Bureau to store water—surplus water in Elephant Butte.

It was obvious from the language of the contract and from a superficial study of the city's water needs and water resources, that Albuquerque would not need all of its San Juan-Chama water for a number of years. And that, I think, what is conceded was stated here by the various witnesses.

The tribe in determining whether Albuquerque would receive beneficial use of this water contracted for studies to determine how much water would be lost as a result of evaporation. We—this study was done by Dr. Turner, and was admitted in evidence in the case and is essentially not rebutted. And we have this also in the appendix to our exhibits to this testimony.

It appeared at the trial that neither the city, nor the State, nor the Bureau of Reclamation had made any studies to determine whether long-term storage in Elephant Butte would be of any benefit to the city through exchange at the end of the storage period. And that was the express purpose of the contract. It was to store excess water in Elephant Butte, and then that water at the end of the period when Albuquerque needed it, all of its excess, all of its San Juan-Chama water, Albuquerque would then be enabled to pump in excess of its vested and its San Juan River water rights and make that up to the river by releasing in Elephant Butte.

But it appeared from Dr. Turner's study, which was based entirely on city and State and Federal source material, it approved that the percentage of water loss versus the total water bypassed by the city and stored in Elephant Butte would vary from 91.42 percent, to 99.61 percent, depending on certain differences and assumptions.

Now, these conclusions were not rebutted by the city of the State. Under the most likely of the city's projects, the city under its

1979 contract with the Bureau, would bypass 1,121,000 acre-feet to Elephant Butte over a 42- or 43-year period; 1,143,000 acre-feet would be lost by evaporation during storage. The water available for exchange, Senator, which would be the only water benefiting Albuquerque, unless you talk about Reclamation, would be 78,854 acre-feet, less than 7 percent of the total.

We had an exhibit at the trial of this case, and unfortunately, the exhibit itself is up at the Tenth Circuit U.S. Court of Appeals, but we did have a rough copy of it. This is based on bypassing all of Albuquerque's excess water.

Senator DOMENICI. That's only hypothetical in that regard?

Mr. NORDHAUS. That is hypothetical, but another projection was made bypassing 60 percent, and the loss was 97 percent of the water. So starting in 1982, bypassing 48,200 acre-feet of water, and bypassing a diminishing amount each year, the total amount of bypass is shown here, 1,121,000 acre-feet.

The water in storage, actual water in storage, would be diminished by evaporation each year, and this did not—this project did not take into account channel losses. As you know, the evaporation rate in Elephant Butte is approximately twice that in Heron and El Vado. So it is, in our conception, a very poor reservoir in which to store excess water.

About 1988, if you follow this scenario, the total water in storage would be 347,000 acre-feet, and in 1998, assuming you continue to bypass, you would not increase the water in storage. The evaporation would then exceed the inflow. So there would be no benefit at all after that date.

Then starting into 2024, according to the city's projections, Albuquerque would require more than its vested rates and its San Juan-Chama water rights, totaling about 67,000 acre-feet. At that stage, there would be 145,000 acre-feet in Elephant Butte for release, and during the period of release you would lose additional water. So at the end of the period there would be 78,000 acre-feet.

Now, at the trial what—and before this, what really bothered us is that we—it was apparent that the city people had given no thought to what would happen in this storage.

Mr. Gill, the assistant director of Albuquerque water testified at the trial, and I don't want to misquote him, so I'm quoting this verbatim:

> *Question.* Did anyone in the city consider how much loss by evaporation there would be if this water were stored for a period of time?
>
> Answer. The amount of water to be put in the reservoir has not been determined. Therefore, no estimate was made of the amount of loss.
>
> *Question.* What information was the Mayor given as to how much water would be available for exchange at the end of the period?
>
> Answer. He was given no information.

The city at the trial claimed that there would be additional power generation, and the question was asked:

> *Question.* There were no studies made as to what additional power might be available with various amounts of storage in the river?
>
> Answer. I have seen none.

The city also claimed there would be increased recreational benefits. With regard to this question, the question was asked:

Question. What studies were made as to additional recreational benefits to the citizens of Albuquerque arising out of a larger pool?

Answer. There were no particular studies that I am aware of that were made. Only the requests that Albuquerque has received over the last ten years from various interested parties to put additional water in Elephant Butte for recreational purposes.

Now, the city argued that the city's excess San Juan-Chama water would be stored in Elephant Butte for the purpose of facilitating resales of water to other users, thus imputing a beneficial use to the city. The court noted that the trial date, 1 year—that 1 year before the water would be available for delivery, that's the larger amount, the increase from 17,700, to 48,000, Albuquerque had not completed or arranged a single contract for the sale of its excess San Juan-Chama project water.

In other words, the city could easily arrange sales out of its current annual deliveries.

The court concluded:

> Under these circumstances, the court must conclude that Albuquerque wishes to store its excess water in Elephant Butte for speculation; has no plans for immediate sale to beneficial users, and such storage does not constitute beneficial use.

With regard to power generation, the court notes that there was no concrete plan for electrical use of additional power generated. The court said:

> Under the circumstances, the court has no trouble concluding that the alleged hydroelectric beneficial use is a facade for the city's attempt to store the water for other possibly less legitimate uses.

The court did hold that storage of water in Elephant Butte for recreation was a beneficial use. But on the other hand, found that Congress had not authorized this storage since the 1974 act (Public Law 93-493), authorizing the storage of 50,000 acre-feet of Albuquerque-San Juan-Chama water in Elephant Butte was the limit of storage permitted by Congress.

And, of course, this bill, Senator, is what you are trying to remove that limit. We understand that.

We also would like to point out that that 1974 act establishing the Elephant Butte recreation pool had a proviso that nothing in that act should be construed to diminish, abridge or impair any water rights of the Jicarilla, Southern Ute, Navajo and Ute Mountain Ute Indians. The act further stated:

> Releases as authorized by this title, should be discontinued or reduced upon a finding by the court of competent jurisdiction that such releases are detrimental to such Indian water rights.

What we don't—you know, it's not our purpose at this stage to determine whether this abrogates Indian water rights. But the—and the tribe does not object to the present Elephant Butte recreation pool. It does object to waste, which would result in storage in Elephant Butte or of any San Juan-Chama water—project water, when that water could be beneficially used elsewhere.

Senator DOMENICI. How much of this water would you use beneficially?

Mr. NORDHAUS. We don't know, yet.

Senator DOMENICI. Certainly the theory you're acting upon would deny New Mexico almost all of its water based upon a hypothetical future use.

Mr. NORDHAUS. No; but, Senator, certainly the water going down that stream and into the Navajo project, will benefit other New Mexico users.

Senator DOMENICI. Well, I haven't seen any study showing where it would go if your theory was right, that we don't divert in the San Juan until we have an actual need. I'd like somebody to have a study to see where it would go.

Mr. NORDHAUS. It would probably end up in Navajo Dam. But in the meantime, it could be used by the tribe. It could be used by the river. It could be used by the tribe and the river. The river is run by the tribe.

Senator DOMENICI. It seems to me that the premise upon which you base putting that river back to where you think it ought to be is an extreme measure and the solution is extreme in terms of New Mexico water users.

Mr. NORDHAUS. Senator Domenici, the tribe does not seek to deprive Albuquerque of that water, personally.

Senator DOMENICI. I understand.

Mr. NORDHAUS. The diversion took water that really belonged in those streams, and at the present time, the operation of that diversion is such that it has ruined the Blanco and Navajo Rivers.

Senator DOMENICI. I'm just saying to you, Mr. Nordhaus, and to the president of the Jicarillas, that that's an issue that has been in controversy for some time. You have been in my office and the president has been in my office many times talking about whether the minimums established in the document attached to the San Juan were right and that the minimums are being complied with. It's a question of whether they will meet the intent, and there's some other structural things that you have been suggesting to correct that. It would appear to me that if you and the Jicarillas maintain that the solution to that is to adopt a policy that does not permit that water to be diverted until there is a present use, is——

Mr. NORDHAUS. No.

Senator DOMENICI [continuing]. There is no way that a Senator from New Mexico——

Mr. NORDHAUS. Senator, that is not the position. The tribe and the court didn't hold that. The court held——

Senator DOMENICI. I know the court didn't hold that.

Mr. NORDHAUS. The court said that storage for 40 years went with——

Senator DOMENICI. I'm familiar with the court decision——

Mr. NORDHAUS. Yes.

Senator DOMENICI. I have no reluctance in saying that it's my privilege to think the court is right, but that's not for me to decide. It's wonderful we have three branches of Government and they can have theirs and I can have mine. But from my standpoint, I think your interpretation of benficial use will lead to absurdity. I would ask you this question.

Did you hear Si Nanninga a minute ago? You know him?

Mr. NORDHAUS. Sure.

Senator DOMENICI. You know the tremendous problems the Rio Grande conservancy district has?

Mr. NORDHAUS. Sure.

Senator **Domenici**. Now, if you carry your reasoning of beneficial use to the extreme, you could not justify the loan arrangement between the Middle Rio Grande conservancy district and Albuquerque unless you found that significant portions of the Middle Rio Grande conservancy district problems are within Albuquerque's confines. And I don't think you, with your integrity, would want to maintain that that's an illegitimate use.

It is a legitimate use?

Mr. **Nordhaus**. No. That's not our position.

Senator **Domenici**. Is that a legitimate use of the San Juan water?

Mr. **Nordhaus**. Yes. That is a legitimate use.

Senator **Domenici**. Then what we would do is we would have to go a step at a time and decide which one is and which one isn't based upon some theory of waste, as you see it. That one is more wasteful than another.

Mr. **Nordhaus**. I think where you have unconscionable waste, as you do in this project, you have an entirely different situation, and we're not saying that storage above Albuquerque should be questioned. We haven't said that, although Mr. Reynolds says that that's a logical conclusion from our taking on storage in Elephant Butte.

Senator **Domenici**. Well, the president did, did he not?

Mr. **Nordhaus**. Well, he said, "Yes, Abiquiu," but we don't know about Abiquiu. I could say that legally we have probably no position, have no position to object to storage in Abiquiu, if it's storage for a reasonable length of time.

Senator **Domenici**. Well, I would state that you're asking that we operate on some theory of relativity or relative loss or waste, if the loan to the Middle Rio Grande is a legitimate purpose, from everything I can read, that could not have occurred, absent the storage of excess water upstream. They wouldn't add water to effect that loan, am I correct?

Mr. **Nordhaus**. The tribe has not attacked storage of water upstream.

Senator **Domenici**. I understand the indication and there isn't any question about it, so there need not be any doubt. My legislation goes far beyond what would be necessary to solve the Elephant Butte issue, but in the process, it would solve that issue, and the 10th circuit court agrees with Judge Payne.

Mr. **Nordhaus**. Sure it would. And that's something that the tribe would have no further control over.

Senator **Domenici**. I think you are left with the position, aside from the technical language of the storage agreement, which would have been stated differently, perhaps, because that permitted you to offer a measuring instrument here that they couldn't rebut, they said they were expecting to get some tail-end benefits, and that's why this became relevant, as I understand it, and could have been stated differently.

Aside from that, it appears to me that the Jicarillas are left with the position, and I'd like you to know now whether it is the case or not, with the position ultimately that we could not move water through the San Juan-Chama diversion unless the quantities to be moved can be proved to be needed now by the units that contracted and are paying for it?

Is that or is that not the position?

Mr. NORDHAUS. Legally, I don't think that is a correct position, and I can't speak for the council, but I would not advise them that the city or any other entity could not divert water that could not be used now. I think we have to go back to what is reasonably beneficial use, and we're only attacking the storage in Elephant Butte.

Senator DOMENICI. All right.

Mr. NORDHAUS. That is all that the case involved. We think that the express purpose of the city was to store that for 40 years, and then try to exchange it and come up with 7 percent of the total water stored.

If the city wants to store its water in Elephant Butte for the recreational benefits of the whole State, we couldn't prevent that. The court said that was the beneficial use. I don't think the people of Albuquerque want to do that.

And what we would propose is No. 1, that if the city can't use that water and the other entities can't use that water, that storage be provide upstream where your evaporative loss is half or less of what it is at Elephant Butte.

And second, that additional storage be provided above the diversion structures, because those diversion structures are very poorly designed and operated, and I think if you will read Judge Mechem's decision, you will recognize that steps in the future will have to be taken to correct that situation.

Senator DOMENICI. I said in my opening exchange with the mayor that that may not be the case. Certainly I'm not one opposing that and objecting to it as somebody develops the professional advice and gets some cost benefit—it doesn't have anything to do with the major premise here. It has nothing to do with whether or not Congress should reconsider those minimum-flow standards that it attached, and more adequately comply with what you purport to be their intention.

Let me just tell you what bothers me about the theory that we ought to move up and store elsewhere. It seems to me that when you have a municipality paying hard-earned money, money hard to come by these days, to live up to their contract rights, that if they thought that this was a waste, they would have been getting together petitioning Congress for some kind of relief from the payments in exchange for some other modus operandi.

I haven't heard a single one of those entities—and the mayor is here, and we'll put him on shortly and ask him if he wants to recommend that the city of Albuquerque not pay for the water in exchange for another kind of use, that minimizes their flexiblity, which is what I really think the issue is about.

I haven't heard anybody say that, except you suggested it. Perhaps the president of the Jicarilla Tribe suggests it here.

Mr. NORDHAUS. Senator, I really believe that if the city people study thoroughly the problem, that they will ask for relief and, now, storage in Abiquiu may be a solution. We think—I personally believe that they should study and find out how much water they will lose in Abiquiu. I don't think they've studied that.

We submit that the city people ought to study and find out how much water they're going to have at the end of the storage. They didn't do that, as you know. If they want to store that water for recreation in Elephant Butte, the tribe has no basis for complaint. The court said that's a beneficial use.

We feel that in this arid country, that water cannot be wasted, and that's the whole basis of our complaint.

Senator DOMENICI. I guess I'm having some difficulty relating the complaints of the Jicarillas to the issue before us. If it is only that the technical aspects of the Elephant Butte Reservoir and the nature of the contract and its clauses, that the city entered into, that either the reasons for it were not proven, or there is something about the Elephant Butte Reservoir that prohibited the storage, if that's your complaint, then I understand.

I don't quite understand how you would be benefited if you won that, if that's the limit of the issue, because you don't have to be very bright to solve that, you just store somewhere else, or you change the contract that you entered into.

I want to believe that that's really all you're saying. I don't really read that in the president's statement or in his answers.

Mr. NORDHAUS. The tribe can use that water until Albuquerque needs it. Actually, just having that water flowing through the Navajo River until it's needed would be of substantial benefit to the tribe.

Senator DOMENICI. Do you have anyone saying that they are not going to divert it, they're going to run it in the other direction, based upon the premise that you take here?

Mr. NORDHAUS. I think it was the 1965 report by Assistant Secretary Horton, the statement was made that water was not needed at the time, that the diversions could be adjusted, would be adjusted to reflect the lack of need.

The point is why the water originally belonged on the west slope. Obviously, the entities contracting for diverted water have a right to that water if they can use it. There's no question. But what has happened is that the San Juan-Chama diversion has a first-call on all that water, except the minimum bypasses.

In other words, they have a prior right to that water, and all that is left is the minimum bypasses. The minimum bypasses take care of the fish, if you have those minimums throughout the reach of the stream, but you don't.

When there is irrigation, the flow in the rivers is reduced substantially below those minimums. Those minimums obtain only at diversion point, as you know, Senator.

Senator DOMENICI. Yeah, but what I'm saying, that's a horse of a different color. We can all go to work at trying to solve that.

Mr. NORDHAUS. Well, I think that's the primary objective of the tribe, is to attempt to restore some of the Navajo River, but that any kind of a project of that kind will take 10 years or 15 or 20 years.

The tribe would certainly ask for your consideration of assistance in restoring the Navajo River over a period of years. And I think a primary purpose at this stage to say, "Well, until we get some relief, water that would otherwise be wasted should remain in the stream." That's in substance what it is.

Senator DOMENICI. Let me ask you one last question, and then, of course, if you or the president want to say anything additional, you're free to do so.

There are entities that have diversions. It's my understanding that a number of them, to this point, have no present immediate use for some of that water. In fact, in some cases, substantial portions of that water.

I note Steve Reynolds nodding that that is true at that point.

Now, I would ask you, is there any public position by anyone to this point in the Department of Interior that says, "Therefore, we should not be diverting it"?

Mr. NORDHAUS. If you have a place to put it where it can be saved, fine.

Senator DOMENICI. No, I didn't ask that. I don't know whether they do or not. You know the situation as well as I.

Mr. NORDHAUS. No. I don't think there's any position. I don't think anybody's considered it, Senator.

Senator DOMENICI. What you're saying, what the president of the Jicarillas is saying, is that that should be the case already, that we should only divert what we actually need now. And I'm telling you that that is relative because we have already been diverting in large quantities, based upon contract obligations met by these contracting units, city of Santa Fe, Albuquerque, and the other ones. I haven't heard anyone say, "We should stop that one, slow it down," because they don't have a present need.

Mr. NORDHAUS. Senator, I'm sure that you are more aware of the law than I am, but we have stated to the court and concede that a municipal—the municipality has a right to store water for reasonable time for future use. It's a question of degree, really.

We don't contest that at all. The courts have said that and we agree.

Senator DOMENICI. All right. President Atole, did you have any further comments?

Mr. ATOLE. Yes, Senator. I would just like to mention that, everybody is aware that water is the most vital resource that we have, especially in the Southwest, and it seems like nowadays everybody has to fight for everything in order to keep what is very vital to them. I feel as president of my tribe, that we do have this resource, and if we don't do this, why, one day in the future, that the tribe will be without the resource that it's needing on the reservation.

And I think this is the main primary concern, is that the resource that we have, it's used—like one of the speakers mentioned, it's for all mankind here within the State of New Mexico. And we feel the same way about it, that as long as it's beneficially used, we don't quarrel whatsoever.

Thank you.

Senator DOMENICI. I appreciate that. I share some of your concerns. Mr. Nordhaus, I really appreciate the expressions you have made here today. I think you understand that if the interpretation of the original San Juan-Chama diversion project were carried to the extreme in terms of proving present need, we would find ourselves in a position where the whole intent of that would be frustrated for years, and the question then would be, "Where did that water go?" The bottom line is that it would not come to the Middle Rio Grande and into this basin until that point in time when we prove need.

I appreciate that you have not been saying that, and I think it's because you understand the tremendous significance of the original diversion concept, and that was a major victory for our State, as I see it, and a major victory for Senator Anderson and others with reference to the Colorado River Basin and our basin. I surely would not want to go back and litigate that one in the Congress, and I'm pleased that you are not suggesting that we do that, in your capacity here today.

Mr. **Nordhaus**. Senator, I worked with the rest of them in this upper Colorado storage project and the San Juan-Chama project, and I think we all recognize that it's vital to the State, so is the preservation of the State's water in every stream system. And again, I say that any kind of waste shouldn't be counted.

Thank you.

Senator **Domenici**. Thank you very much.

Jesse Gilmer, State of Texas, Rio Grande Compact Commission. Jesse, we welcome you here.

STATEMENT OF JESSIE B. GILMER, COMMISSIONER, RIO GRANDE COMPACT COMMISSION

Mr. **Gilmer**. Thank you, sir.

Mr. Chairman, my name is Jesse B. Gilmer. Thank you very much for the opportunity of permitting me to testify before you here today. I appear here today as Rio Grande Compact commissioner for Texas. As such, I have the honor of representing that portion of New Mexico below Elephant Butte Reservoir, and Texas, above Fort Quitman on Rio Grande Compact Commission matters.

We support the proposal to store the city of Albuquerque's San Juan-Chama project waters in Abiquiu and Elephant Butte Reservoirs in New Mexico.

We support and urge rapid congressional authorization for the construction of levees and other flood control measures along the channel of the Rio Grande in the vicinity of Albuquerque. This should be a high-priority project and should be approved and funded for construction at the earliest opportunity.

The Albuquerque district engineer of the corps has consistently taken the position, which has been agreed to by the Rio Grande Compact Commission, to limit San Juan-Chama project water stored in Abiquiu Reservoir, to the capacity of the sediment pool, pending the conclusion of a 5-year study by the corps, to determine the safety of the dam, the adequacy of the reservoir spillway and the adequacy of the Rio Chama channel below the reservoir. We are informed that it will be a year-and-a-half before this study is completed.

Mr. Chairman, since about 1974, there have been frequent discussion between members of the Rio Grande Compact Commission and the district engineer of the Corps of Engineers at Albuquerque and others, concerning the storage of San Juan-Chama waters in Abiquiu Reservoir. At the 1977 commission meeting held March 24, 1977, in Santa Fe, there was a discussion about storage of San

Juan-Chama waters in Abiquiu, up to about 65,000 acre-feet, which would be the unused portion of the sediment pool.

During the discussion, I stated, "It is the agreement there today between the compact commissioners and the corps, that any plan for storage of non-Rio Grande water in Abiquiu Reservoir, would be up to a maxmium of 65,000 acre-feet of sediment and water." And following my statement, Commissioner Steve Reynolds, who is the State engineer in New Mexico, said,

> I think the corps is bound to stay within the limitations of the sediment pool to respect the safety of the structure.

Mr. Reynolds further stated,

> Now, obviously, the corps is not going to undertake conservation storage in Abiquiu Reservoir in any way that would endanger the structure itself, or endanger life and property below the structure.

The discussion then went again to the storage of only 65,000 acre-feet, pending the completion of a study being conducted by the corps. As a part of the discussion, Mr. Reynolds stated,

> Mr. Chairman, I think I have said that as unequivocally as can be said. It is my understanding that the corps would not store more than that amount for the reason that it would violate certain principles under which the structure was designed.

Mr. Chairman, if indeed there is concern about the safety of Abiquiu Dam, should we store in it the maximum flood waters it was designed for, plus more than the amount of the sediment pool of San Juan-Chama water, I would recommend that the Congress amend S. 620 to place a ceiling on San Juan-Chama storage in Abiquiu Reservoir of 65,000 acre-feet, or the unused portion of the sediment pool, pending action taken by parties of interest upon consideration of the corps' completion study.

Furthermore, legislation concerning Abiquiu Reservoir should provide that Rio Grande waters have first priority for storage and conveyance in the Chama channel below the reservoir.

In addition, we recommend that section 2(b) of S. 620, dealing with Abiquiu Reservoir, provide for the operation of the reservoir in conformance with the provisions of Public Law 86–645, the corps operating manual, and the Rio Grande Compact. There should be no departure from the operating schedule described in Public Law 86–645 and S. 620, except with the advice and consent of the Rio Grande Compact Commission.

We further recommend that section 2(c) of S. 620 be administered by the Bureau of Reclamation of the Department of Interior in strict compliance with the Rio Grande Compact and with the advice and consent of the Rio Grande Compact Commission.

Thank you, sir.

Senator **Domenici**. I wonder if you disagree with Colonel Pylant, who has testified that space is available for storage at Abiquiu?

Mr. **Gilmer**. Yes, space is available at Abiquiu. I refer to the corps' position and Mr. Reynolds' position on the safety of the structure in relation to the amount of storage.

Senator **Domenici**. Then where do you get the 65,000, as compared with the 100,000 acre-feet that's in the bill?

Mr. **Gilmer**. Sir, 65,000 is the total amount more or less of the sediment pool. It has been agreed for many years that we would not store water in excess of the sediment pool of about 65,000 acre-feet pending the outcome of the corps' 5-year study. That has been the unanimous agreement of the Compact Commission, the Bureau of Reclamation, and the Corps of Engineers, in my opinion.

Senator DOMENICI. Do you support expeditious completion of the dredging and levee system that's prescribed for in this bill?

Mr. GILMER. Sir, for 15 years, I have held that the utmost important single problem in the upper Rio Grande was a Chama channel. About 1975, Colonel Jim Sutton, the District Engineer of the corps, came to me and said:

> The most important single item is the levee and channel conditions in the vicinity of Albuquerque. If you will agree with me that that is our No. 1 item of importance in the upper Rio Grande, I will agree with you that the No. 2 item of importance is the Chama channel.

I immediately agreed with him, and I have been supported in that agreement by my advisors for Elephant Butte Reservoir. It's the most critical single problem we have, in my opinion, and I urge the earliest possible solution of the problem.

Senator DOMENICI. I don't want my silence to be construed to mean that I have now agreed to the two-one one-two switches between us, but I tell you, I'll certainly look at it and let's see if we can agree. I can tell you I'm going to push this one as rapidly as I can, and would almost say to you, if we get any water bill through the Congress this year, we'll get that on it.

Mr. GILMER. Sir, it's critical to all of us.

Senator DOMENICI. Did you have anything else of a technical nature you wanted to add to the record?

Mr. GILMER. No, sir.

Senator DOMENICI. Thank you very much, sir.

Mr. GILMER. Thank you, sir.

Senator DOMENICI. Let me ask Steve Reynolds if he would just clear up something for me. Is there any inconsistency between Mr. Gilmer's statement with reference to the 65,000 acre-feet in Abiquiu, and your position?

Mr. REYNOLDS. I think not, fundamentally, Mr. Chairman. We have a figure at about 63,000 now. Certainly, I agree that the corps cannot store beyond that without either further construction on the spillway, or a change in their operating procedures, operating according to a schedule, taking into account spring runoff as Colonel Pylant has described this morning.

Senator DOMENICI. All right. So that provision of the bill wherein we talk about "for storage of a total of 200 acre-feet of such water in Abiquiu Reservoir," would you explain to me whether or not we have to change that?

Mr. REYNOLDS. I would think not. That will with either, say, further construction on the spillway, or with the modification of their procedures, 200,000 acre-feet could be stored without endangering the structure.

Senator DOMENICI. Mr. Gilmer, do you disagree or not with that?

Mr. GILMER. Sir, it could be stored according to the testimony of Mr. Reynolds and the Corps of Engineers, it could not be stored without engaging the integrity of the structure, except by use for snowmelt runoff of a reservoir occurring. You cannot predict rainfall floods.

Senator **Domenici**. All right. So we don't have any inconsistency there. What we're talking about is the way it's managed and the spillway system?

Mr. **Reynolds**. I think we're in agreement, Mr. Chairman.

Senator **Domenici**. Anybody else want to comment? Mr. Nordhaus, did you have anything further?

Mr. **Nordhaus**. No, thank you, sir.

Senator **Domenici**. President Atole?

Mr. **Atole**. No, thank you.

Senator **Domenici**. I want to thank of you and members of the Jicarilla governing body and people from Jicarilla for coming here. I'm sorry we had to hold this so far away, but I think it was a choice of either here or further away in Washington. I think it is probably more accommodating for everyone that it be here.

We thank all the witnesses for the time they have spent this morning with us. Did you want to add something?

Mr. **Noland**. Yes, I might want to make a comment.

Senator **Domenici**. Sure, come on. Tell us who you are. I know who you are, but let's make sure the record does.

STATEMENT OF PAUL NOLAND, DIRECTOR, WATER RESOURCES, CITY OF ALBUQUERQUE, N. MEX.

Mr. **Noland**. Senator, I'm Paul Noland, director of water resources, city of Albuquerque. Mayor Rusk had to leave and he wanted a concluding statement made. He wanted to point out that at some point in the future, the city will have to start drawing down on its surplus of water to meet its demands on the river from the pumping that we will do. And that this has to be considered in your comments about having the greatest flexibility available to us for the storage of water, so that when that day comes, we have the amounts available to meet our requirements.

It is most appropriate and most important to us. And the flexibility of Elephant Butte is important to us, whether or not we ever store water there.

I would add that at this time we are actively negotiating with some potential water users in the Elephant Butte area for substantial amounts of water. This gives us great flexibility because if we, for example, rather than storing the water, sell some of that water, we can take that money to buy additional water rights, we can exchange water rights, so flexibility is the greatest concern of the city.

Senator **Domenici**. Paul, let me ask you, for the record, would you tell us what your official capacity is?

Mr. **Noland**. I'm director of water resources, city of Albuquerque.

Senator **Domenici**. And how long have you held that job?

Mr. **Noland**. Since October 1976.

Senator **Domenici**. I was going to say that as part of the flexibility, I could envision that the mesa valley below Elephant Butte could have a need, and on a temporary basis it would be Albuquerque's prerogative under my interpretation, based only upon good economics, obviously you won't sell a farmer or lease a farmer water rights at twice what it costs for him to pump or manually irrigate what he's entitled to.

But at some point in time, with a great demand there, that always appears to me to be part of the flexibility of the city. I understand that was not necessarily part of this litigation, but it does appear to me that those kinds of arrangements are what was contemplated. I think flexibility is the word that sums it up.

I appreciate the mayor's comments. I thank Si Nanninga for his very, very succinct statement with reference to flexibility. I think he summarized it very well.

Paul, unless you have something else, you're excused.

Yes?

STATEMENT OF FLORENCIO BACA

Mr. BACA. Yes, Senator. I wanted to get clarification on the questions you asked Mr. Reynolds here about the possibility of storing water in lakes that had been created down through the confines of the Middle Rio Grande conservancy district.

I have come up with a proposal to make such a pond within the confines of the metropolitan area between Corrales and Rio Rancho here. Channelization of the river would create these ponds. You asked us questions whether these ponds could be used as storage facilities for some of our water that had been bought from the San Juan———

Senator DOMENICI. I don't want to get the U.S. Senate or this Senator in the middle of a local decision as to what should or shouldn't be done with referernce to any specific item, so I assume that you are asking a hypothetical question, and I would only answer it in that context.

I would answer it that you are right in what you propose. I would say this is no better than from whence it comes. I am not the judge, and I'm not the ultimate interpreter, but it appears to me if the city of Albuquerque chooses to do that, they have the right to do so. I don't know whether Steve Reynolds wants to add anything for the record on that. We certainly are not asking that any person, entities, or project get any kind of ratification in this hearing. That's not what we're here for.

But generally, Steve, based upon your testimony here, I would think the answer would be yes.

Mr. REYNOLDS. Yes. Clearly, Mr. Chairman, it seems to me the city could do that. I will not try to speculate about who might object if they did try it. I think that even with respect to that, this bill would be dispositive. The problem with that is largely physical.

Mr. DOMENICI. We need to have you state your name for the record.

Mr. BACA. Florencio Baca.

Senator DOMENICI. And would you tell us your address, Florencio?

Mr. BABA. 923 Rio Vista Place, Southwest.

Senator DOMENICI. I saw some other hands raised.

Yes?

Ms. DUNLAP. Senator, I'd like to make a comment on the bill, if I could.

Senator DOMENICI. Sure.

STATEMENT OF ANN DUNLAP, MAYOR VILLAGE OF CORRALES

Ms. DUNLAP. My name is Ann Dunlap, I am the mayor of the village of Corrales, and Senator, the village and a number of members of the Middle Rio Grande council of governments are very happy to see this bill introduced and support it thoroughly. One point that has been added to the original proposal that we are very thankful about is the idea of dredging and channelizing the river, as well as looking at improving the levee system, and I would just like to speak to that issue and say that the village of Corrales and in the areas of Los Lunas and Bosque Farms, we have a high water table problem that affects not only the drainage—the septic systems, the wells and even the agricultural lands down in the Los Lunas area, and it seems to us the channelizing the river in this project would be of great benefit as in other ways, as well as in flood control.

I was a little disturbed to read Senator Schmitt's comment that said the bill says that dredging will be done. Senator Schmitt says that dredging where necessary. And the Village of Corrales and I'm sure the Village of Los Lunas and Bosque Farms would like to be assured that their areas will be looked at for dredging because they are needed very badly. And I guess I propose that as a question.

Senator DOMENICI. I certainly don't want to speak for Senator Schmitt, but let me just tell you, he's a cosponsor of this bill. We drafted it and he's aware of the situation. I think that was a cautious statement on his part, but I can tell you for the record that the clear intent is, as you have stated it, and that is what the corps is recommending, so we won't do it any other way, and perhaps you can take my word that Senator Schmitt means that when he says, "where necessary."

Ms. DUNLAP. Thank you very much.

Senator DOMENICI. Mayor, I do apologize, if we did not officially inviting you to the hearing today, I really assumed that we were all in accord and that there wasn't any misunderstanding, but I'm glad that you came—to tell us that.

Ms. DUNLAP. No problem. Happy to be here.

Senator DOMENICI. Yes, sir.

Mr. BROWN. Arthur Brown of Westside Association. How are you, sir?

Senator DOMENICI. How are you, Arthur, nice to see you.

Mr. BROWN. Might I ask for the record, that is it possible to submit written testimony?

Senator DOMENICI. Arthur, we were just going to announce that. We'll leave the record open for 2 weeks for any further written comments from anyone or amplification of testimony by any of those that testified.

Mr. BROWN. The discussion today, how does one get copies of that?

Senator DOMENICI. You could write to us and ask us for it.

Mr. BROWN. All right sir.

Senator DOMENICI. Yes.

STATEMENT OF NIEL STILLINGER, ATTORNEY, SANTA FE METROPOLITAN, WATER BOARD

Mr. STILLINGER. Senator, my name is Neil Stillinger, and I'm attorney for the Santa Fe Metropolitan Water Board. You know, the city of Santa Fe and Public Service Co. furnishes water to the city as one of the beneficiary contracting entities in the San Juan-Chama project. And the chairman of the board, Mr. Felipe Gonzales, instructed me to appear today and voice our support for the legislation which you have introduced, which we believe will clear up any of legal problems concerning storage of San Juan-Chama water and reservoirs in the system which may have arisen from the Jicarillas.

So we just wanted to say that we do support the legislation. We are certainly hoping that the Senate received the pat.

Senator DOMENICI. Thank you very much. Would you also tell the chairman that we apologize for not officially inviting him. Basically, we assumed that the State water engineer would be covering the various entities, and since the issue was basically recreated by an Albuquerque litigation, we invited the Albuquerque officials, but I thank you very much.

Mr. STILLINGER. Thank you, Senator.

Senator DOMENICI. All right. The subcommittee is adjourned. Thank you all very much.

[Whereupon the hearing was adjourned to reconvene at the call of the Chair.]

[Statements supplied for the record and the bill, S. 620, follow:]

STATEMENT
Presented to the
WATER RESOURCES SUBCOMMITTEE
of the
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
on
S.620, a Bill to Authorize the Construction of a Project
for Flood Control in the Vicinity of Albuquerque, New Mexico,
and for Other Purposes
by
S. E. Reynolds
Secretary, New Mexico Interstate Stream Commission
July 2, 1981

Mr. Chairman, my name is S. E. Reynolds. I am State Engineer for New Mexico and, ex officio, Secretary of the New Mexico Interstate Stream Commission.

Section 1

Section 1 of S.620 would authorize the construction of a project for flood control in the vicinity of Albuquerque, New Mexico, in conformity with the report of the Board of Engineers for Rivers and Harbors dated June 2, 1980. Attention is invited to an apparent clerical error at line seven of page one of the bill giving the date of the report of the Board of Engineers as September 14, 1979.

The flood plain of Rio Grande that was the subject of the District Engineer's May 1979 report extends approximately 60 miles along Rio Grande from Bernalillo downstream to below Belen, encompassing approximately 70,000 acres occupied by about 150,000 people. Major developed areas include Bernalillo, Corrales, Los Ranchos de Albuquerque, Los Lunas, Belen and a large portion of the City of Albuquerque, including the downtown business district. According to the Corps' report, the population in the flood plain is expected to double in the Albuquerque area and quadruple in the northern and southern reaches of the study area by the year 2030.

The existing levee system was authorized in 1948 to provide protection from flood flows up to 20,000 cubic feet per second (cfs), except in the vicinity of Corrales. At that time the study reach, except what is now known as the Albuquerque Unit, was primarily a rural area. In 1958, levees in the Albuquerque Unit were reconstructed by the Corps of Engineers to provide protection from flows up to 42,000 cfs.

As the District Engineer's May 1979 report relates, four federal dams, Jemez, Galisteo, Cochiti and Abiquiu, control flood flows coming into the study reach; however, there remain 1100 square miles of uncontrolled drainage area below these dams which can produce flood flows in excess of the capacity of the existing levees. The report also reflects that the levees in the Albuquerque Unit are still capable of providing protection against flows of 42,000 cfs, that the Bernalillo reach provides protection against flows up to 30,000 cfs, that the Corrales reach is protected against flows up to only 7500 cfs, that the reach from Albuquerque to Isleta is protected against flows of only 10,000 cfs and that from Isleta to below Belen protection is afforded from flows up to only 7500 cfs.

The report recognizes that much of the area along Rio Grande outside the Albuquerque Unit from Corrales to Belen has changed to an urban area requiring a higher degree of flood protection than now exists, and estimates the total average annual flood damages within the study reach at $4,474,000 at October 1978 price levels.

The plan recommended by the District Engineer's report would provide flood protection from the 270-year flood frequency, or 42,000 cfs, throughout the study reach, except for the Bernalillo segment, which is currently protected from flows up to 30,000 cfs.

The District Engineer's report, with the changes in the plan recommended by the Board of Engineers for Rivers and Harbors demonstrates that additional protection in the Middle Rio Grande is badly needed, that the total average annual flood damage prevented by construction of the selected plan would be $2.8 million, and that the benefit-cost ratio would be 1.7.

The standard project flood has been determined to be 75,000 cfs at the upstream end of the study reach near Bernalillo and 67,000 cfs at the downstream end near Belen. While it is the policy of the Corps of Engineers to provide protection against the standard project flood in urban areas, the Board of Engineers finds it appropriate to accept a lower degree of protection in this case; the Interstate Stream Commission concurs, particularly because of the high cost of bridge modification in the Albuquerque Unit that would be necessary in a project designed to protect against the standard project flood. This finding is consistent with the wishes of the local interests.

The report of the Board of Engineers for Rivers and Harbors recommends, pursuant to cost-sharing policy proposed by the President in 1978, that the project for Middle Rio Grande Flood Protection be authorized, provided that the State of New Mexico agrees to make a cash contribution equal to 5% of the total first cost of the project and that the local interests agree to make cash or in-kind contribution of lands, easements and rights-of-way equal to 20% of the project first cost. However, the $33,224,000 federal cost that would be authorized by S.620 is sufficient to pay the full cost of construction, with local interests furnishing all the necessary lands, easements and rights-of-way. Accordingly, I assume that it is the intent of the bill to authorize the Middle Rio Grande Flood Protection Project for construction under the cost-sharing policy established by the 1936 Flood Control Act, as amended.

The New Mexico Interstate Stream Commission strongly supports the enactment of Section 1 of S.620.

Section 2

The San Juan-Chama Project was authorized in 1962 by Public Law 87-483 to divert an average of 110,000 acre feet annually from San Juan River tributaries in Colorado through the Continental Divide into Heron Reservoir, the Project's 400,000 acre-foot terminal storage facility on the east side of the Divide. Those contracting for Project water accept delivery at the outlet of Heron Reservoir. The contractors have no carryover privileges; if the contractor is unable in any year to take its water from Heron Reservoir and apply it to beneficial use, the water is left in Heron Reservoir and the contractor loses its entitlement to that water.

Table 1 attached lists tentative and firm allocations of Project water. Seven of those presently contracting for Project water need to be able to store water accepted at the Heron Reservoir outlet for use in subsequent years.

In 1963 the City of Albuquerque contracted for Project water. Under this contract, as amended in 1965, (copy attached for convenient reference) the City is to be furnished 17,700 acre feet of water annually in the ten-year period 1972 through 1981. In calendar year 1982 and each year thereafter, the City will receive 48,200 acre feet.

Under the terms of the contract the City must make annual payments to reimburse its share of the construction and operation maintenance costs of the project, whether or not it is able to take the water and apply it to beneficial use. The 1981 payment amounts to $923,541. Over the 50-year contract period the cost to the City will be about $30 per acre foot.

The City of Albuquerque takes all of its water supply from the aquifer of the declared Rio Grande Underground Water Basin. The City's purpose in contracting for San Juan-Chama Project water was to acquire a supply which could be used to offset the effects of the City's pumping on the flow of Rio Grande to avoid, as must be done under New Mexico law, the impairment of existing rights to the surface flow of Rio Grande.

It was well understood at the time of San Juan-Chama Project authorization that it would be many years before the City needed all of the water it proposed to contract for to offset the effects on the flow of Rio Grande resulting from its withdrawals of ground water for distribution in the municipal system. The plan filed by the Bureau of Reclamation in 1955 pursuant to Section 72-5-33 NMSA 1978, made clear that it would be necessary and appropriate for the City of Albuquerque to be able to resell the water for which it had contracted to recover at least a part of its costs. The testimony of Mr. Ed Engle, then City Manager, in support of project authorization, made clear that the City contemplated such resale. Consistent with the legislative history, Albuquerque's contract for San Juan-Chama Project water, unlike other contracts for Project water, permits such resale without further approval of the contracting officer.

At this time Albuquerque withdraws most of its supply from wells located several miles from the river. For this reason, it will be many years before the full effects of those withdrawals are reflected in the flow of the river. Current projections indicate that it will be about 1985 before any of Albuquerque's imported water will be needed to offset the effects of its ground water withdrawals on the flow of the river and that the full amount of imported water that Albuquerque has contracted for will not be required for that purpose until about 2024. For this reason the City on August 6, 1979 entered a contract with the United States to store its imported water in Elephant Butte Reservoir (copy attached).

In February of 1980, the Jicarilla Apache Tribe filed its First Amended Complaint in Jicarilla Apache Tribe v. United States of America before the United States District Court for the District of New Mexico. The City of Albuquerque, the Middle Rio Grande Conservancy District and the State of New Mexico through its Interstate Stream Commission are defendant-intervenors in that case. The Court entered its Memorandum Opinion and its Judgment in the case on May 8, 1980.

The Federal District Court's decision held that the City's contract to store imported water in Elephant Butte Reservoir was invalid and left serious question whether San Juan-Chama Project water could be stored in any reservoir other than Heron. One of the reasons given for invalidating the contract is that there is no Congressional authorization for the storage of Albuquerque's water in Elephant Butte Reservoir.

The ability of those contracting for San Juan-Chama Project water to store that water in reservoirs other than Heron for subsequent use is crucially important to the best management of San Juan-Chama Project water in the public interest.

The Department of Energy (Los Alamos) has contracted for 1200 acre feet of Project water and at this time has about 5500 acre feet in storage in El Vado Reservoir.

Santa Fe and the Public Service Company of New Mexico have contracted for 5605 acre feet of Project water and have about 19,000 acre feet stored in El Vado Reservoir and about 1300 acre feet stored by exchange in reservoirs on Santa Fe River.

As of January 1, 1981 Albuquerque had about 29,400 acre feet of its Project water stored in El Vado Reservoir and another 40,800 acre feet stored in Abiquiu Reservoir. Under a loan arrangement all of the Albuquerque water that was stored in El Vado Reservoir at the first of the year was released recently for use in the Middle Rio Grande Conservancy District.

The District in the past has stored as much as 61,800 acre feet of its Project water in El Vado Reservoir.

Twining, Espanola and Los Lunas also have stored their Project water in El Vado Reservoir in small amounts.

The complaint of the Jicarilla Apache Tribe apparently challenges the storage of San Juan-Chama Project water in any reservoir other than Heron on the basis of the language of Section 2 of the Colorado River Storage Project Act (Public Law 84-485, April 11, 1956) which reads as follows:

> Provided, that with reference to the plans and specifications for the San Juan-Chama Project, the storage for control and regulation for water imported from the San Juan River shall (1) be limited to a single offstream dam and reservoir on a tributary of the Chama River, (2) be used solely for control and regulation and no power facility shall be established, installed or operated thereat, and (3) be operated at all times by the Bureau of Reclamation of the Department of the Interior in strict compliance with the Rio Grande Compact as administered by the Rio Grande Compact Commission.

The Tribe's complaint is not the first instance in which this challenge has been made and there are at least three Solicitors' opinions that seem to make it clear that the language quoted above does not prohibit the storage of contracted water, accepted at Heron Reservoir outlet, in other reservoirs. Copies of those opinions dated April 27, 1972, June 27, 1972 and January 22, 1979 are attached to this statement for convenient reference.

Subsection 2(a) of the bill would finally resolve and make unequivocally clear that San Juan-Chama Project water acquired by contract with the Secretary of the Interior may be stored in reservoirs other than Heron.

Subsection 2(b) of the bill deals with storage of Project water in the Corps' Abiquiu Reservoir. Under existing law and physical circumstances at Abiquiu Reservoir, the Corps of Engineers may store contracted San Juan-Chama Project water in the unfilled sediment capacity of that reservoir. That capacity is currently about 63,000 acre feet, of which 37,300 acre feet is currently occupied by Albuquerque's imported water.

Preliminary studies indicate that with modest modification of the Abiquiu Reservoir spillway, or with an adjustment of the Corps' operating procedures, 200,000 acre feet or more of Project water could be stored in Abiquiu Reservoir without interference with the authorized flood and sediment control purposes.

Enactment of Subsection 2(b) of the bill would give clear Congressional authorization for such storage. Under the terms of that subsection, the owners of the imported water thus stored would be required, appropriately, to pay any increase in operation and maintenance cost attributable to the storage of his water. My understanding of the intent of the bill is that there would be no requirement for the reimbursement of construction costs unless additional construction is required to make possible the storage of imported water without interference with the authorized purposes of the Abiquiu Reservoir project.

Enactment of Subsection 2(c) of the bill would give clear Congressional authorization for the storage of contracted San Juan-Chama Project water in Elephant Butte Reservoir pursuant to contracts such as the one entered by the City of Albuquerque and the United States in August 1979.

Subsection 2(d) would require that the San Juan-Chama Project water stored in Abiquiu Reservoir or Elephant Butte Reservoir be accounted as required by the Rio Grande Compact and the procedures established by the Compact Commission. The Compact Commission on May 3, 1974 adopted a resolution prescribing the accounting procedures for imported water stored in Abiquiu Reservoir and on March 29, 1979 adopted a resolution prescribing the procedures for the accounting of imported water stored in Elephant Butte Reservoir. Copies of those resolutions are attached to this statement for convenient reference.

Considering only the 350,000 acre-feet that Albuquerque might accumulate in Elephant Butte Reservoir, there could be important public benefits from the storage:

a. Under the well-established principles for "exchange" of water, the water stored at Elephant Butte could be used to offset the effects of Albuquerque's ground water withdrawals on the river during the non-irrigation season with no adverse effects on any existing water rights, including the rights of the three states under the Rio Grande Compact.

b. The water stored at Elephant Butte Reservoir would remain available for resale by Albuquerque.

c. The increased head on the turbines at Elephant Butte Reservoir would result in enhanced production of hydroelectric energy. There is a ready market for such energy to substitute for energy currently produced by oil and gas fired generators.

d. The increase in the amount of water stored in Elephant Butte Reservoir would improve fish and wildlife habitat and substantially enhance recreation opportunity.

The Defendants appealed the District Courts' Judgment in Jicarilla Apache Tribe v. United States of America on July 8, 1980; and argument was heard on May 14, 1981. I am not competent to speculate on when or how the 10th Circuit Court of Appeals will rule; however, the need to store contracted San Juan-Chama Project water in reservoirs other than Heron is certain and immediate.

The Interstate Stream Commission supports enactment of Section 2 of S.620.

Section 3

Section 3 of the bill would authorize the expenditure of $300,000 for the recovery of cultural resource data at the Santa Rosa Lake on the Pecos River. It does not appear that this authorization would in any way affect the authorized operation of Santa Rosa Lake by the Corps of Engineers for flood and sediment control and conservation storage for the Carlsbad Irrigation District. Accordingly no objection to the enactment of that section is offered.

The opportunity to present to this distinguished Subcommittee a statement on S.620 on behalf of the State of New Mexico is warmly appreciated.

TABLE I

SAN JUAN-CHAMA PROJECT WATER - ACRE FEET

Entity	Tentative and Firm Allocation	Firm Allocation
Cochiti	5,000[1/]	5,000[1/]
Elephant Butte Reservoir	6,000[2/]	6,000[2/]
Middle Rio Grande District	20,900	20,900
City of Albuquerque	48,200	48,200
Pojoaque Valley District	1,030	1,030
Santa Fe	5,605	5,605
Department of Energy (Los Alamos)	1,200	1,200
Los Lunas	400	400
Twining	15	
Red River	60	
Questa	200	
Taos	400	
Espanola	1,000	1,000
Bernalillo	400	
Cuba	300	
Belen	500	
Northeastern New Mexico	3,000	
Taos Tributary Unit	4,500	
Llano Tributary Unit	8,690	
Rio Chama Ditches	400	
Totals	101,800	83,335

[1/] Authorized in perpetuity by Public Law; expires in 1985
[2/] Authorized for a period of 10 years by Public Law

Contract No. 14-06-500-810

SAN JUAN-CHAMA PROJECT
NEW MEXICO

CONTRACT

Between the

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

and the

CITY OF ALBUQUERQUE, NEW MEXICO
for
Furnishing a Municipal Water Supply

THIS CONTRACT, made this 25th day of June, 19 63, between the UNITED STATES OF AMERICA, hereinafter styled the United States, acting through the Secretary of the Interior, and pursuant to the Federal Reclamation Laws, including particularly the Act of June 13, 1962 (76 Stat: 96), and the Act of April 11, 1956 (70 Stat. 105), all as amended or supplemented, and the CITY OF ALBUQUERQUE, herein styled City, a municipal corporation in the State of New Mexico acting by virtue of authority of general law, Laws, 1959, Chapter 275 (sec. 14-40-90.1 et seq., N.M.S.A., 1953 Comp., as amended in 1959), and the Charter for the City of Albuquerque, New Mexico, as amended.

WITNESSETH THAT:

WHEREAS, by the Act of Congress approved June 13, 1962 (76 Stat. 96), the Congress approved the initial stage of the San Juan-Chama Project as a participating project of the Colorado River Storage Project; and

WHEREAS, the San Juna-Chama Project is approved for furnishing water for municipal, domestic, and industrial uses, and for other beneficial purposes; and

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WHEREAS, the City desires and is empowered to contract with the United States for the purpose of obtaining, securing, and supplementing its water supply, such water to be used by the City for municipal purposes, as hereinafter defined; to pay for such water during the term of this contract by contracting for the payment of an agreed share of the reimbursable costs of the construction, operation, and maintenance of the project in accordance with Reclamation Law and to make and enforce water rates and charges sufficient to meet the payments required by this contract;

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, it is hereby mutually agreed by the parties hereto as follows:

DEFINITIONS

1. When used herein, unless otherwise distinctly expressed or manifestly incompatible with the intent hereof, the term:

a. Contracting Officer - shall mean the Secretary of the United States Department of the Interior or his duly authorized representative.

b. Federal Reclamation Laws - shall mean the Act of June 17, 1902 (32 Stat. 388), and all acts amendatory thereof or supplementary thereto.

c. Project - shall mean the initial stage of the San Juan-Chama Project, Colorado-New Mexico, as authorized by the Act of Congress dated June 13, 1962 (76 Stat. 96).

d. Reservoir Storage Complex - shall mean all features, lands, and rights-of-way of the project directly associated with the initial collection and storage of project water, and includes all works from the enlargement of the outlet of the existing El Vado Dam upstream to and including and connecting the three diversion dams on the Rio Blanco, Little Navajo, and Navajo Rivers.

e. Project Works - shall mean all works or facilities constructed including the diversion works, reservoirs, dams, pipelines, conduits, and outlet works, together with land and rights-of-way for such works.

f. Project Water - shall mean water available for use through the project works.

g. Water for ~~Municipal Purposes or~~ City Water Supply ✓ Purposes - shall mean that portion of the project water to be used or disposed of exclusively by the City.

h. Water Supply Costs - shall mean that portion of project costs payable by the City to the United States for the water supply allocated to it from the project.

i. Deferred Charges - shall mean that portion of the reimbursable costs payable by the City which are related to impounding water for anticipated future demand, and which are deferred under the conditions and authority of the Water Supply Act of 1958 (72 Stat. 297).

j. Operation and Maintenance - shall mean and include normal and reasonable care, control, operation, maintenance, and replacement of the reservoir storage complex.

k. Year - shall mean the period January 1 through the next following December 31.

PROJECT PLAN

2. a. The initial stage of the project is designed to furnish an average of about 101,800 acre-feet of water annually at the outlet of Heron Dam from the natural flow of the Rio Blanco, Little Navajo, and Navajo Rivers in Colorado for use in the Rio Grande Basin in New Mexico. The principal engineering works of the project will involve three major elements, and shall include: (1) Diversion. Three dams for diversion of natural flows from the Rio Blanco, Little Navajo, and Navajo Rivers with feeder conduits and the main conduit; (2) Regulation. Storage and regulation facilities at the Heron Reservoir on Willow Creek, and enlargement of the outlet works of the existing El Vado Dam on Rio Chama; and (3) Water use. To provide the City of Albuquerque with additional water for municipal purposes; to provide supplemental water for irrigation of irrigable land in the Middle Rio Grande Conservancy District; to replace depletions in the Rio Grande Basin; and reservoirs, dams, canals, laterals, and drainage for furnishing a firm water supply to land in the Cerro, Taos, Llano, and Pojoaque tributary irrigation units.

b. The United States shall have the right at any time to increase the capacity of the project works or any unit or feature thereof without cost to the City, provided that the City's use of project water to the extent allocated in this contract shall not be impaired thereby. The right of use of such increased capacity is reserved to the United States.

ALLOCATION OF COSTS OF RESERVOIR STORAGE COMPLEX

3. a. The construction cost of the reservoir storage complex has been estimated as of January 1963 prices to total $64,497,000, allocated as follows:

Municipal Water Supply Purposes	$30,926,000
Irrigation	28,840,000
Fish and Wildlife	3,494,000
Highway Relocation	893,000
Other	344,000
Total	$64,497,000

b. Subject to the terms and conditions of this contract the United States will construct the required features of the project and acquire necessary lands, equipment, and facilities within the estimated cost limits hereinabove set forth, plus or minus such amounts, if any, as may be required by reason of changes in construction costs as indicated by engineering cost indices applicable to the type of construction involved herein, or so much thereof as in the opinion of the Contracting Officer is necessary for such purpose, within the limit of funds made available by the Congress. No expenditures shall be made in excess of $64,497,000 unless additional funds are made available therefor and valid contracts have been executed adequate to provide for payment to the United States of reimbursable portions of the additional amount.

CITY WATER SUPPLY COSTS-CONSTRUCTION

4. a. In consideration of the City's right upon completion of construction to obtain, secure, and supplement its water supply, the City shall pay to the United States the costs, including interest during construction, incurred by the United States in constructing the reservoir storage complex which are allocated to a municipal water supply for the City. Provided, however, that the City's maximum obligation shall not exceed $30,926,000, plus 5 percent of such amount for contingencies resulting from fluctuations in project construction costs increasing the total cost of the project above January 1963 prices, plus interest during construction, and annual interest on the unamortized balance of the costs allocated to municipal water supply purposes, with the exception of that portion of the interest waived under authority of the Water Supply Act of 1958 and detailed in Article 6. The interest rate applicable for purposes of computing interest during construction and interest on the unpaid balance shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations which are neither due nor callable for redemption for 15 years from the date of issue. An interest rate of 2.936 percent per annum has been approved as being applicable in the event construction is started on or before June 30, 1963. This rate of 2.936 percent per annum has been used in preparing the table of estimated annual installments in Article 6.

b. Should the final construction costs of the reservoir storage complex vary from estimates in this contract, as determined and announced by the Contracting Officer, then allocations of reservoir storage complex costs to municipal and irrigation uses, and to fish and wildlife benefits shall be appropriately adjusted, and the resulting allocation, with interest added as provided above, shall become the City's water supply costs-construction. If the Contracting Officer finds at any time that the works required to carry out the objectives of this contract cannot be completed within the cost estimates shown in Article 3, he shall consult with the City, and appropriations therefor then being available and authorized, may make continuation of construction contingent upon the execution and confirmation of a valid amendatory or supplementary contract or contracts by the City increasing its maximum obligation to cover the increased reimbursable costs, and allocation of sufficient funds. Under this requirement the Contracting Officer shall consult with the City should bids received on the first major contract or contracts advertised be such as to make it unlikely the reservoir storage complex can be completed within the preceding cost limitation. If the parties hereto are unable to agree upon the terms of such an amendatory contract for repayment of the additional costs, the Contracting Officer may issue the requisite notice for commencing repayment as provided in Article 5.

c. Water supply costs shall include an amount to cover simple interest during construction to be calculated on one-half of each fiscal year's expenditures allocated to a municipal water supply for the City, together with interest at the same rate annually on the full amount of such expenditures during previous fiscal years. The total amount of such interest shall be included in water supply costs payable by the City.

COMPLETION NOTICE

5. When the project is complete and project water is available for use by the City, the Contracting Officer may issue a completion notice for establishing the year in which the first annual payment by the City on its water supply costs shall be made.

PAYMENT OF WATER SUPPLY COSTS-CONSTRUCTION

6. a. The construction portion of the City's water supply costs for the water hereby contracted to be obtained and secured by it shall be based upon the costs incurred by the United States in constructing the reservoir storage complex and which are allocated to a municipal water supply, estimated currently at $30,926,000, plus not to exceed 5 percent for possible contingencies as described in Article 4, and plus interest as specified. The City's obligation for water supply costs based upon construction costs as herein described shall be paid by the City to the United States in 50 annual installments, the first of which shall become due on September 1 of the year next succeeding the year in which the reservoir storage complex is, as announced by the Contracting Officer through issuance of a completion notice under the provisions of Article 5 hereof, sufficiently complete to permit making water available to the City at the point of release designated by the Contracting Officer from Heron Dam and Reservoir, if such notice is given prior to September 1; otherwise to commence in the second year after such notice is given. Subsequent annual installments shall become due on September 1 of each succeeding year.

b. Project storage is designed to yield 53,200 acre-feet of water annually at the outlet of Heron Dam for City water supply purposes. That portion of the firm annual yield provided for anticipated future City water demand is 30,500 acre-feet. The construction cost allocated to storage provided for such anticipated future demand shall be 30 percent of the construction cost of the dam and reservoir

(reservoir storage complex), plus interest during construction on that part of the construction cost, currently estimated at $70,186,000, on the basis of the costs presented in Article 3. No water supply costs based upon construction costs or interest are required to be paid during the first 10 years of the contract term on said yield provided for anticipated future water demand, unless all or a portion thereof is used in any year in said 10-year period, in which event all payments required to be made in subsequent years shall be adjusted to reflect both principal and interest costs of that portion of the reserved storage then placed in use. Such adjustment will be determined by multiplying the percentage of the yield allocated to future demand which is withdrawn in such year for municipal water supply purposes, by the cost allocated to future demand.

c. The City's water supply costs for construction shall be paid in annual installments as shown in the following table until the actual costs have been finally determined, at which time this table shall be corrected, and the remaining annual installments payable by the City shall be adjusted to provide payment on the basis of actual construction costs, including interest. In the event that annual reservoir withdrawals for municipal use exceed 22,700 acre-feet in any one of the first 10 years of the repayment period, all remaining annual installments shall be adjusted as provided in paragraph b above.

Annual Installment		Annual Installment	
Number	Payment	Number	Payment
1	$ 380,000	26	$1,400,000
2	440,000	27	1,430,000
3	500,000	28	1,460,000
4	560,000	29	1,490,000
5	620,000	30	1,513,100
6	680,000	31	1,513,100
7	740,000	32	1,513,100
8	800,000	33	1,513,100
9	860,000	34	1,513,100
10	920,000	35	1,513,100
11	950,000	36	1,513,100
12	980,000	37	1,513,100
13	1,010,000	38	1,513,100
14	1,040,000	39	1,513,100
15	1,070,000	40	1,513,100
16	1,100,000	41	1,513,100
17	1,130,000	42	1,513,100
18	1,160,000	43	1,513,100
19	1,190,000	44	1,513,100
20	1,220,000	45	1,513,100
21	1,250,000	46	1,513,100
22	1,280,000	47	1,513,100
23	1,310,000	48	1,513,100
24	1,340,000	49	1,513,100
25	1,370,000	50	1,511,500

d. The City may make advance payments on any annual installment as set forth in paragraph c above, whereupon the schedule of future payments will be adjusted and interest components determined by unamortized construction costs shall be reduced accordingly.

e. All payments required hereunder shall be considered and held to be an expense of operation and maintenance of the water system of the City. In no event shall the obligation hereunder to make such payment be considered or held to be a general obligation or indebtedness of the City within the meaning of any constitutional or statutory provision.

PAYMENT OF WATER SUPPLY COSTS--OPERATION AND MAINTENANCE

7. a. The United States shall be responsible for the operation and maintenance of the reservoir storage complex. Notice covering the next calendar year will be issued to the City on or before May 1 of each year with the first notice to be issued in the year immediately preceding the first full calendar year for which water is available for use by the City as determined by the Contracting Officer. Said notice shall show an itemization of the estimated reimbursable operation and maintenance costs of the reservoir storage complex, excluding operation and maintenance costs of El Vado Dam and Reservoir, with the exception of 27 percent of any replacement costs of the outlet works of said El Vado Dam. When all project water has been committed to use by contract, the City's water supply costs under this article shall include a share of these expenses, to be 52.27 percent based on an allotment to it of 53,200 acre-feet of water per annum, but not to exceed 52.27 percent of the total water supply available from the project in any year for all purposes. Prior to the time all water has been allocated by contracts between the United States and the prospective users, annual reimbursable operation and maintenance costs will be apportioned among the existing contractors in proportion to their maximum allocation of water. To the extent the City may require water in excess of its allocations under this contract, it shall be entitled to share any uncommitted project water by negotiating a contract for payment of costs associated therewith, all as determined by the Contracting Officer. The City will advance its share of operation and maintenance costs for each calendar year as follows:

(1) One-fourth on or before December 31 of the preceding year.

(2) One-fourth on or before March 10 of the year to which applicable.

(3) One-fourth on or before May 10.

(4) One-fourth on or before August 30.

In the event the operation and maintenance cost estimate falls short of the actual costs in any period, or whenever it is anticipated by the Contracting Officer that a deficit will occur during the year, supplemental notices may be issued by the Contracting Officer requesting additional funds or revising the charges payable for the remaining periods covered by the above due dates. Funds not spent during one calendar year will be carried over for use during the next calendar year with funds required for that year reduced accordingly, and an itemized statement of actual costs incurred during the year shall be furnished to the City.

b. Operation and maintenance costs attributed to the fish and wildlife function are estimated to be 5.6 percent of the annual operation and maintenance costs of the reservoir storage complex, excluding El Vado Dam and Reservoir. The City and other contractors will not be obligated to pay that portion of the annual operation and maintenance cost allocated to the fish and wildlife function. If unusual circumstances arise which throw the allocation out of balance, an appropriate modification in the percentage figure will be made by the Contracting Officer.

c. All payments required hereunder shall be considered and held to be an expense of operation and maintenance of the water system of the City. In no event shall the obligation hereunder to make such payment be considered or held to be a general obligation or indebtedness of the City within the meaning of any constitutional or statutory provision.

CITY CHARGES NOT REDUCED BY WATER USER DEFAULTS

8. The City is obligated to pay the United States the charges becoming due as provided in this contract, notwithstanding the default in the payment to the City by individual water users of charges fixed by the City.

CONDITIONS PRECEDENT TO CONSTRUCTION

9. The United States shall not be obligated to commence construction or perform any other act in pursuance of this contract, to continue such construction or performance, nor shall any water be delivered, until and unless the following requirements have been met:

a. Validity of Contract. Proceedings on the part of the City for the authorization of the execution of this contract and the validity of all supporting actions shall have been confirmed by decree of a court of competent jurisdiction or pending appellate action if ground for appeal be laid. Upon execution of this contract the City diligently shall prosecute to final conclusion such confirmation proceedings. The City at its cost shall furnish to the United States two certified copies of the decree of confirmation and all pertinent supporting records.

b. Other Repayment Contracts. The United States shall not be required to initiate construction until the Middle Rio Grande Conservancy District shall have executed a contract satisfactory to the Contracting Officer covering a share of the costs of the reservoir storage complex.

ACCESS TO BOOKS AND RECORDS

10. Duly authorized representatives of each party shall have the right, during office hours, to inspect and to make copies of the other party's books and official records relating to matters covered by this contract, and the duly authorized representatives of each party shall cooperate with the duly authorized representatives of the other party in all matters where either party may be called upon to furnish information related to the matters covered by this contract.

RATES AND CHARGES BY THE CITY

11. a. City shall fix and collect such rates and charges for water and services to be supplied by its waterworks system as will make possible the prompt payment of all expenses of operating and maintaining its waterworks system, the making of all payments contracted hereunder, and the prompt payment of the principal and interest on all of its obligations payable from the revenues of its waterworks system. All payments required to be made by the City under this contract may be made solely out of the income and revenue derived from water rates and charges; provided, however, that the City may in its discretion, as permitted under the laws at the time effective, appropriate money from any source for the purpose of relieving the necessity of increasing the said rates and charges for water service. Nothing herein contained shall be construed as requiring the City to use for such purposes the proceeds of any general (ad valorem) tax or to take any action in connection herewith which would create a debt in contravention of either Section 12 or Section 13, Article IX, New Mexico Constitution.

b. Should the City fail to collect charges due from any water user, or should the City be prevented from collecting such charges by any judicial proceeding, or otherwise fail to collect them, no such water user shall receive water available under this contract. The United States reserves the right without liability to refuse delivery of water to the City in the event the City fails to pay charges at the time and in the manner and amounts provided for in this contract.

TITLE TO PROJECT WORKS

12. Title to all project works and facilities shall remain in the United States until otherwise provided by the Congress.

INTEREST ON DELINQUENT INSTALLMENTS

13. Every payment required to be paid to the United States under this contract which shall remain unpaid after it shall have become due and payable shall bear interest at the rate of 6 percent per annum from the date of delinquency. Provided, that no interest shall be charged to or be paid by the City unless such delinquency continues for more than thirty (30) days.

COMPUTATION OF COSTS

14. a. The costs which shall be the basis of determining the City's water supply costs as well as the various charges to be paid by the City to the United States under this contract shall embrace expenditures of whatsoever kind in connection with, growing out of, or pursuing from the work or operation described, including but without limitation by means of this enumeration, the cost of labor, material, equipment, engineering, costs of water accounting, and legal work, superintendence, administration and overhead, general expenses, rights-of-way, inspections, special services, property damages of all kinds. The determination of what costs are properly chargeable hereunder and the amount thereof shall be determined by the Contracting Officer on the basis of costs actually incurred in construction and completion of the reservoir storage complex.

b. Each year that construction is in progress, the Contracting Officer shall furnish the City a statement of costs actually incurred in constructing the project during the preceding year and a schedule of programed expenditures for the current year.

DEFAULT

15. In the event the City shall fail to pay all or any part of its obligations incurred under this contract, and such default shall have continued for a period of not less than 2 years, the United States may, at its option, in addition to all other rights provided in this contract, exercise all or any of the following rights and remedies.

a. The United States may withhold all or any part of the water supply allocated to the City by this contract and may sell or dispose of such part without obligation, responsibility, or liability for damages to the City and shall apply the net revenue from said sales as a credit upon the obligation of the City to the United States.

b. The United States may terminate this contract whereupon all rights thereunder accruing to the City shall cease and terminate. Such termination, however, shall not relieve the City from its obligation to pay all costs, charges, or installments due and payable under this contract prior to the effective date of such termination.

RESTRICTIONS ON DELIVERY OF WATER

16. a. No project water shall be available to or delivered to the City or by the City during any period in which the City may be:

(1) More than 12 months in arrears in the payment to the United States of any water supply costs based upon construction costs of the project.

(2) In arrears in the advance payment to the United States of the water supply costs based upon operation and maintenance charges fixed under Article 7 of this contract.

b. No project water shall be delivered by the City to any water user when such user is in arrears in the payment to the City of any charges fixed by the City for the purpose of raising revenues to meet the payment by the City to the United States of any of the City's obligations under this contract, and furthermore, the City will utilize the rights and remedies available to it for effecting collection of funds for paying its obligations under this contract.

BREACH OF CONTRACT

17. Nothing contained in this contract shall be construed as abridging, limiting, or depriving the United States or the City of any means of enforcing any remedy either at law or in equity for the breach of any provisions hereof which either party would otherwise have. The waiver of a breach of any of the provisions of this contract shall not be deemed to be a waiver of any provisions hereof, or of any other or subsequent breach of any provisions hereof.

WATER RIGHTS - WATER SUPPLY GENERAL

18. a. Use of Water During Construction - During construction of the reservoir storage complex, any water which may become legally available and usable may be disposed of by the United States through temporary water supply contracts at such rates as the Contracting Officer may determine and establish. The places of measurement and delivery shall be established by the Contracting Officer. Net proceeds from the sale of water under the temporary water supply contracts shall be credited to the cost of the project.

b. Water Shortages - On account of drouth or other causes, there may occur at times during any year a shortage in the quantity of water available from the reservoir storage complex for use by the City pursuant to this contract. In no event shall any liability accrue against the United States or any of its officers or employees for any damage, direct or indirect, arising out of any such shortage.

c. Quality of Water - The United States makes no warranty as to the quality of the water available to the City under this contract.

d. City Water Rights - The City and its agents and assigns shall have the exclusive right to use and dispose of that share of the project water supply available and allocated to municipal water supply purposes subject to payment on a current basis of such charges as are provided for in this contract. Water may be used or disposed of for any purpose desired by the City from time to time, either within or without the territorial limits of the City as such limits shall be changed from time to time. Such use or disposal may be by diverting and applying ~~such water directly from the Rio~~ Grande stream system, ~~by diverting and applying underground water~~ utilizing project water to offset the adverse effects of such underground water withdrawals heretofore or hereafter made from the Rio Grande stream system, or otherwise as the City may desire. Upon completion of repayment of that portion of the City's water supply costs based upon a share of project construction costs, together with the interest thereon, and so long as costs based upon expenses for the operation and maintenance of the project works are paid, the City shall have a permanent right to the use of that portion of the project water supply allocated to its use herein.

e. Annual Water Carryover Prohibited - Rights to use water vested in the City by this contract shall be allowed on an annual basis, and no credits covering any unused water shall be allowed to carry over to any subsequent calendar year.

f. Water Rights - In no event shall the United States be obligated to commence any of the work contemplated by this contract or perform any other act in pursuance of this contract until and unless water rights satisfactory to the Contracting Officer are obtained and made available for project purposes.

g. Return Flow - The parties hereto do not abandon nor relinquish any of the seepage or return flow water attributable to the use of the project water supply.

h. Other Uses - The project is authorized for furnishing water for irrigation and municipal uses and for providing recreation and fish and wildlife benefits, and for other beneficial purposes. The supply to be available for water users of the City, and the costs payable by the City for a municipal water supply reflect apportionment among these purposes and regulation of releases.

i. Surplus Water - In any year following construction of the reservoir storage complex for which the Contracting Officer determines that water allocated by this contract to the City is not in that year to be used or disposed of by the City and is legally available for use, such surplus may be disposed of by the Contracting Officer. For the first 10 years of the repayment period, revenues from the sale of such surplus in excess of that portion reserved for future use in Article 6b shall be applied to reduce costs payable by the City. Thereafter all revenues from the sale of such surplus water shall be applied to reduce costs payable by the City.

j. Use and Allotment of Project Water - The project is designed to furnish an estimated firm yield from proposed storage for project use of approximately 101,800 acre-feet of water annually. Of this yield, 53,200 acre-feet shall be available annually to the City for use as a municipal water supply. Of this amount, 22,700 acre-feet shall be available annually to the City as soon as project features necessary to permit the City to utilize the project water supply are completed, and 30,500 acre-feet shall be available for anticipated future demand of the City. The Contracting Officer has authority and responsibility for water measurement as set forth in the Accounting of Water report, San Juan-Chama Project, dated February 1963. During periods of scarcity when the actual available water supply may be less than the estimated firm yield, the City shall share in the available water supply in the ratio that allocations above bear to the estimated firm yield. In utilizing the available water supply to the extent permitted by law from the water rights available to the project, the City shall take its municipal water requirements at Heron Dam at the point designated by the Contracting Officer. The responsibility of the United States shall cease at the point of delivery. During periods of abundance when the actual available water supply may be more than the estimated firm yield, the City shall have the right to a share in the actual available water supply in the ratio that allocations above bear to the estimated firm yield, all as determined by the Contracting Officer.

COMPLIANCE WITH ACTS OF CONGRESS OF APRIL 11, 1956, AND JUNE 13, 1962

19. Construction, care, operation, and maintenance of the project and project works, including the allocation, diversion, and distribution of water as authorized by the Act of Congress of April 11, 1956 (70 Stat. 105), and the Act of Congress of June 13, 1962 (76 Stat. 96), shall be subject to and in conformance with the applicable conditions, limitations, and provisions of these acts, and the statutes, compacts, and treaties referenced in said 1956 and 1962 acts.

CONTINGENT UPON APPROPRIATION OR ALLOTMENT OF FUNDS

20. The expenditure of any money or the performance of any work by the United States herein provided for, which may require appropriations of money by Congress or the allotment of funds, shall be contingent upon such appropriation or allotments being made. The failure of Congress to appropriate funds or the failure of any allotment of funds shall not, however, relieve the City from any obligations theretofore accrued under this contract nor give the City the right to terminate this contract as to any of its executory features. No liability shall accrue against the United States in case of such funds not being appropriated or allotted.

DETERMINATIONS

21. Where the terms of this contract provide for action to be based upon the opinion or determination of either party to this contract, whether or not stated to be conclusive, said terms shall

not be construed as permitting such action to be predicated upon arbitrary, capricious, or unreasonable opinions or determinations.

CHANGES IN CITY BOUNDARIES

22. While this contract is in effect, no change causing any reduction in the area of the City shall be made in the City by proceedings to dissolve, consolidate, merge, or otherwise except upon the Contracting Officer's written consent thereto, and such consent shall not be unreasonably withheld. Provided, however, that nothing in this article will prevent the consolidation or merger with Bernalillo County, New Mexico, on condition that the new organization accepts and agrees to be bound by the terms and conditions of this contract.

NOTICES

23. Any notice authorized or required to be given to the United States shall be delivered or mailed, postage prepaid, to the Regional Director, Bureau of Reclamation, P. O. Box 1609, Amarillo, Texas. Any notice authorized or required to be given to the City shall be delivered or mailed, postage prepaid, to the City Clerk, P. O. Box 1293, with a copy to Peter Gallagher and Albert T. Ussery, P. O. Box 487, Albuquerque, New Mexico. The designation of the addressees or the addresses given above may be changed by notice given in the same manner as provided in this article for other notices.

BENEFITS CONDITIONED UPON PAYMENT

24. Should any charges or payments required by the terms of this contract and levied against any water user be judicially determined to be irregular or void, or the City or its officers be enjoined or restrained from making or collecting any charges as provided for herein, such user shall have no right to any of the benefits of this contract and no water shall be made available from the project for such user. If it is judicially determined that the City is not authorized to accomplish collections necessary for the sale or distribution of water to meet its obligations under the contract, the United States is hereby authorized to sell water direct to those using the City supply or to others, and apply net revenues therefrom to the credit of the City's account.

AMENDMENT OR REPEAL OF FEDERAL RECLAMATION LAWS

25. In the event that the Congress of the United States may repeal or amend any of the provisions of the Federal Reclamation Laws, the United States agrees, at the option of the City, to negotiate amendments of appropriate articles of the contract consistent with the provisions of the laws effecting any such repeal or amendment.

TERM OF CONTRACT

26. This contract shall be effective on execution and shall continue until the water supply costs payable by the City based upon project construction costs are paid in full. Upon the expiration of said term, the City shall have a vested right to renew said contract indefinitely at appropriate annual service charges so long as a water supply may be available and the City is current on its payments for water service. After all water supply costs based upon construction charges are paid, succeeding water supply cost payments shall be based upon the estimated amounts which will be required to meet the City's proper share of the United States' expenses and obligations incurred in the operation and maintenance of the project.

CERTIFICATION

27. The City certifies and recites that the execution of this contract is duly authorized by law; that all acts, conditions, and things required to exist precedent to this contract, to render the same lawful and valid, have been properly done and happened, and have been performed in regular and due time, form and manner as required by the constitution and laws of the State of New Mexico; that this contract does not exceed any constitutional or statutory limitations; and that provisions will be made for all payments due hereunder by irrevocably pledging to the payment hereof sufficient revenues of the waterworks syste of the City. The City warrants and guarantees that it has not obligated itself and is not now bound by the issuance of prior bonds or otherwise in such a manner that prohibits or makes inoperative any of the terms, conditions, or obligations herein provided.

ASSIGNMENT LIMITED - SUCCESSORS AND ASSIGNS OBLIGATED

28. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any part or interest therein shall be valid until approved by the Contracting Officer.

OFFICIALS NOT TO BENEFIT

29. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ Leon W. Hill

Title Regional Director

CITY OF ALBUQUERQUE

By /s/ Archie Westfall

Title Chairman, City Commission

(SEAL)

ATTEST:

/s/ Ida V. Malone
City Clerk

APPROVED:

/s/ Frank L. Horan
Counsel

Copy of Ordinance attached

(FST082864)

Contract No. 14-06-500-810
Amendment No. 1

SAN JUAN-CHAMA PROJECT
NEW MEXICO

AMENDATORY CONTRACT

Between the

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

and the

CITY OF ALBUQUERQUE, NEW MEXICO

for

FURNISHING A MUNICIPAL WATER SUPPLY

1965 THIS AMENDATORY CONTRACT, made this 6th day of July, ~~1964~~, between the UNITED STATES OF AMERICA, hereinafter styled United States, acting through the Secretary of the Interior, and pursuant to the Federal Reclamation Laws, including particularly the Act of June 13, 1962 (76 Stat. 96), the Act of April 11, 1956 (70 Stat. 105), and the Act of March 26, 1964 (78 Stat. 171), all as amended or supplemented, and the CITY OF ALBUQUERQUE, herein styled City, a municipal corporation in the State of New Mexico acting by virtue of authority of general law, Laws, 1959, Chapter 275 (Sec. 14-40-90.1, et seq., N.M.S.A., 1953 Comp., as amended in 1959), and the Charter for the City of Albuquerque, New Mexico, as amended.

WITNESSETH THAT:

WHEREAS, by Contract No. 14-06-500-810, dated June 25, 1963, herein referred to as the basic contract, the United States and the City of Albuquerque contracted for construction of the initial stage of the San Juan-Chama Project and for repayment of reimbursable costs allocated to municipal uses, and

WHEREAS, by Act of Congress dated March 26, 1964 (78 Stat. 171), the Secretary is authorized to make water available for a permanent pool for fish and wildlife and recreation purposes at Cochiti Reservoir from the San Juan-Chama Project, and the City of Albuquerque evidences its support of this recreational development by relinquishing a portion of its water allocation consistent with the requirements for said purposes.

(FST082864)

NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, it is hereby mutually agreed by the parties hereto as follows:

1. Paragraph a of Article 3 of the basic contract is hereby revised to read as follows:

3a. The contruction cost of the reservoir storage complex has been estimated as of January 1963 prices to total $64,497,000 allocated as follows:

Municipal Water Supply Purposes	$28,019,000
Irrigation	28,840,000
Fish and Wildlife	6,401,000
Highway Relocation	893,000
Other	344,000
Total	$64,497,000

2. Paragraph a of Article 4 of the basic contract is hereby revised to read as follows:

4a. In consideration of the City's right upon completion of construction to obtain and secure water to supplement its water supply, the City shall pay to the United States the costs, including interest during construction, incurred by the United States in constructing the reservoir storage complex which are allocated to a municipal water supply for the City. Provided, however, That the City's maximum obligation shall not exceed $28,019,000, plus 5 percent of such amount for contingencies resulting from fluctuations in project construction costs increasing the total cost of the project above January 1963 prices, plus interest during construction, and annual interest on the unamortized balance of the costs allocated to municipal water supply purposes with the exception of that portion of the interest waived under authority of the Water Supply Act of 1958 and detailed in Article 6. The interest rate applicable for purposes of computing interest during construction and interest on the unpaid balance shall be determined by the Secretary of the Treasury, as of the beginning of the fiscal year in which construction is initiated, on the basis of the computed average interest rate payable by the Treasury upon its outstanding marketable public obligations which are neither due nor callable for redemption for 15 years from the date of issue. An interest rate of 3.046 percent per annum has been approved as being applicable as construction was started during Fiscal Year 1964. This rate of 3.046 percent per annum has been used in preparing the table of estimated annual installments in Article 6.

(FST082864)

3. Paragraphs a, b, and c of Article 6 of the basic contract are hereby revised to read as follows:

6a. The construction portion of the City's water supply costs for the water hereby contracted to be obtained and secured by it shall be based upon the costs incurred by the United States in constructing the reservoir storage complex and which are allocated to a municipal water supply, estimated currently at $28,019,000, plus not to exceed 5 percent for possible contingencies as described in Article 4, and plus interest as specified. The City's obligation for water supply costs based upon construction costs as herein described shall be paid by the City to the United States in 50 annual installments, the first of which shall become due on September 1 of the year next succeeding the year in which the reservoir storage complex is, as announced by the Contracting Officer through issuance of a completion notice under the provisions of Article 5 hereof, sufficiently complete to permit making water available to the City at the point of release designated by the Contracting Officer from Heron Dam and Reservoir if such notice is given prior to September 1; otherwise to commence in the second year after such notice is given. Subsequent annual installments shall become due on September 1 of each succeeding year.

b. Project storage is designed to yield 48,200 acre-feet of water annually at the outlet of Heron Dam for City water supply purposes. That portion of the firm annual yield provided for anticipated future City water demand is 30,500 acre-feet. The construction cost allocated to storage provided for such anticipated future demand shall be 30 percent of the construction cost of the dam and reservoir (reservoir storage complex), plus interest during construction on that part of the construction cost, currently estimated at $70,186,000 on the basis of the costs presented in Article 3. No water supply costs based upon construction costs or interest are required to be paid during the first 10 years of the contract term on said yield provided for anticipated future water demand, unless all or a portion thereof is used in any year in said 10-year period, in which event all payments required to be made in subsequent years shall be adjusted to reflect both principal and interest costs of that portion of the reserved storage then placed in use. Such adjustment will be determined by multiplying the percentage of the yield allocated to future demand, which is withdrawn in such year for municipal water supply purposes, by the cost allocated to future demand.

c. The City's water supply costs for construction shall be paid in annual installments as shown in the following table until the actual costs have been finally determined, at which time this table shall be corrected, and the remaining annual installments payable by the City shall be adjusted to provide payment on the basis

(FST052064)

of actual construction costs, including interest. In the event that annual reservoir withdrawals for municipal use exceed 17,700 acre-feet in any one of the first 10 years of the repayment period, all remaining annual installments shall be adjusted as provided in paragraph b above.

Annual Installment		Annual Installment	
Number	Payment	Number	Payment
1	299,600	26	1,297,800
2	354,300	27	1,324,400
3	409,300	28	1,351,000
4	464,100	29	1,377,600
5	518,900	30	1,397,700
6	573,400	31	1,396,900
7	628,000	32	1,396,100
8	682,500	33	1,395,100
9	737,000	34	1,394,200
10	791,300	35	1,393,300
11	893,500	36	1,392,400
12	920,800	37	1,391,400
13	948,000	38	1,390,400
14	974,900	39	1,389,300
15	1,002,200	40	1,388,200
16	1,029,200	41	1,387,100
17	1,056,300	42	1,386,000
18	1,083,200	43	1,384,800
19	1,110,200	44	1,383,600
20	1,137,100	45	1,382,400
21	1,164,000	46	1,381,100
22	1,190,900	47	1,379,800
23	1,217,600	48	1,378,400
24	1,244,400	49	1,377,200
25	1,271,100	50	1,374,300

4. Paragraphs a and b of Article 7 of the basic contract are hereby revised to read as follows:

7a. The United States shall be responsible for the operation and maintenance of the reservoir storage complex. Notice covering the next calendar year will be issued to the City on or before May 1 of each year with the first notice to be issued in the year immediately preceding the first full calendar year for which water is available for use by the City as determined by the Contracting Officer. Said notice shall show an itemization of the estimated reimbursable operation and maintenance costs of the reservoir storage complex, excluding operation and maintenance costs of El Vado Dam and Reservoir, with the exception of 27 percent of any replacement costs of the outlet works of said El Vado Dam. When all project water has been committed to use by contract, the City's water supply costs under this article shall include a share of these expenses, to be 47.35 percent based on an allotment to it of 48,200 acre-feet of water per annum, but not to exceed 47.35 percent of the total water supply available from the project in any year for all purposes. Prior to the time all water has been allocated by contracts between the United States and the prospective users, annual reimbursable operation and maintenance costs will be apportioned among the existing contractors in proportion to their maximum allocation of water. To the extent the City may require water in excess of its allocations under this contract, it shall be entitled to share any uncommitted project water by negotiating a contract for payment of costs associated therewith, all as determined by the Contracting Officer. The City will advance its share of operation and maintenance costs for each calendar year as follows:

(1) One-fourth on or before December 31 of the preceding year.

(2) One-fourth on or before March 10 of the year to which applicable.

(3) One-fourth on or before May 10.

(4) One-fourth on or before August 30.

In the event the operation and maintenance cost estimate falls short of the actual costs in any period, or whenever it is anticipated by the Contracting Officer that a deficit will occur during the year, supplemental notices may be issued by the Contracting Officer requesting additional funds or revising the charges payable for the remaining periods covered by the above due dates. Funds not spent during one calendar year will be carried over for use during the next calendar year with funds required for that year reduced accordingly, and an itemized statement of actual costs incurred during the year shall be furnished to the City.

b. Operation and maintenance costs attributed to the fish and wildlife function are estimated to be 10.24 percent of the annual operation and maintenance costs of the reservoir storage complex, excluding El Vado Dam and Reservoir. The City and other contractors will not be obligated to pay that portion of the annual operation and maintenance cost allocated to the fish and wildlife function. If unusual circumstances arise which throw the allocation out of balance, an appropriate modification in the percentage figure will be made by the Contracting Officer.

(FST070165)

5. Paragraph j of Article 18 of the basic contract is hereby revised to read as follows:

18j. Use and Allotment of Project Water - The project is designed to furnish an estimated firm yield from proposed storage for project use of approximately 101,800 acre-feet of water annually. Of this yield, 48,200 acre-feet shall be available annually to the City for use as a municipal water supply. Of this amount, 17,700 acre-feet shall be available annually to the City as soon as project features necessary to permit the City to utilize the project water supply are completed, and 30,500 acre-feet shall be available for anticipated future demand of the City. The Contracting Officer has authority and responsibility for water measurement as set forth in the Accounting of Water report, San Juan-Chama Project, dated February 1963. During periods of scarcity when the actual available water supply may be less than the estimated firm yield, the City shall share in the available water supply in the ratio that allocations above bear to the estimated firm yield. In utilizing the available water supply to the extent permitted by law from the water rights available to the project, the City shall take its municipal water requirements at Heron Dam at the point designated by the Contracting Officer. The responsibility of the United States shall cease at the point of delivery. During periods of abundance when the actual available water supply may be more than the estimated firm yield, the City shall have the right to a share in the actual available water supply in the ratio that allocations above bear to the estimated firm yield, all as determined by the Contracting Officer.

6. Article 19 of the basic contract is hereby revised to read as follows:

19. Construction, care, operation, and maintenance of the project and project works, including the allocation, diversion, and distribution of water as authorized by the Act of Congress of April 11, 1956 (70 Stat. 105), the Act of Congress of June 13, 1962 (76 Stat. 96), and the Act of Congress of March 26, 1964 (78 Stat. 171), shall be subject to and in conformance with the applicable conditions, limitations, and provisions of these acts, and the statutes, compacts, and treaties referenced in said 1956, 1962, and 1964 Acts.

7. In the event Cochiti Reservoir is not constructed, then the revisions herein to provide for the relinquishment of 5,000 acre-feet of water by the City and the adjustments in costs to reflect such relinquishment shall not be effective. In this event, the revisions in the basic contract caused by Articles 1 through 6 of this contract shall be nullified insofar as they pertain to Articles 3a, 6a, 6b, 7a,

(FST070165)

7b, 18j, and 19, and these articles shall be applicable as they appear in the basic contract. Article 4a of the basic contract shall remain as revised by Article 2 of this amendatory contract except that "$30,926,000" shall replace "$28,019,000" in line 8. Article 6c shall revert to the language as written in the basic contract, except that the table of annual installments shall be revised to reflect an interest rate of 3.046 percent per annum.

8. The basic contract shall remain in full force and effect except as herein specifically amended.

IN WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ Leon W. Hill

Title Regional Director

CITY OF ALBUQUERQUE

By /s/ Archie Westfall

Title Chairman, City Commission

(SEAL)

ATTEST:

/s/ Ida Malone
City Clerk

APPROVED:

/s/ Peter Gallagher
Counsel

(FST020979)
(RO022679)
(RO032779)

AGREEMENT

THIS AGREEMENT, made this 6th day of August 1979, in pursuance of the Act of Congress approved June 17, 1902 (32 Stat. 388), and acts amendatory thereof and supplementary thereto, including particularly the Act approved July 9, 1965 (Public Law 89-72, 79 Stat. 213), between the UNITED STATES OF AMERICA hereinafter referred to as the "United States," acting for this purpose through the Regional Director, Southwest Region, Bureau of Reclamation, and the city of Albuquerque, New Mexico, a municipal corporation hereinafter referred to as the "City."

WITNESSETH THAT:

WHEREAS, the United States has constructed, owns, and operates Elephant Butte Dam and Reservoir; and

WHEREAS, the City has contracted with the United States for water from the San Juan-Chama Project measured at the outlet of Heron Reservoir in the amount of 17,700 acre-feet per year through 1981 and 48,200 acre-feet per year thereafter; and

WHEREAS, the City wants to store in Elephant Butte Reservoir and hold for future use a portion of San Juan-Chama water available under contract and not presently needed for municipal use; and

WHEREAS the City has requested the United States to permit such water to be stored at Elephant Butte Dam; and

WHEREAS, the United States is agreeable to such storage under the terms hereinafter set forth, providing such storage will in no way adversely affect the storage of treaty water belonging to the Republic of Mexico or the irrigation function of the project or the storage rights of the Elephant Butte Irrigation District or El Paso County Water Improvement District No. 1; and

WHEREAS, water stored for the City is to be relinquished as ordered by the New Mexico State Engineer to offset the depletion to the flow of the Rio Grande as the result of pumping by the City for its municipal supply or released for other use at discretion of the City.

NOW, THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable considerations; it is understood and agreed as follows:

1. That the City may store in Elephant Butte Reservoir San J14-06-500-810ject water to which it is entitled under contract No. ________________ during terms of this agreement.

2. The amount of evaporation loss and spill chargeable to the City's water stored in Elephant Butte Reservoir and the amount of the City's water in storage shall be determined in accordance with procedures provided by the Rio Grande Compact Commission.

3. The water storage rights of the City in Elephant Butte Reservoir under this contract are subject to storage rights of Elephant Butte Irrigation District and El Paso County Water Improvement District No. 1 and to rights of the United States to store water for the purpose of delivering of treaty water to Mexico. In the event of spill from Elephant Butte Reservoir, the spill shall be charged in the following order: (1) Albuquerque San Juan-Chama Project water; (2) San Juan-Chama Project water stored in Elephant Butte Reservoir under Public Law 93-493, and (3) waters of the Rio Grande.

4. Waters of the City stored at Elephant Butte Reservoir shall be debited as ordered by the State Engineer to offset pumping effect on the flow of the Rio Grande by the City for its municipal supply or its releases for other uses.

5. The City will pay to the United States annually 10 cents per acre-foot of the San Juan-Chama water stored for the City in Elephant Butte Reservoir. The annual charge shall be based on the sum of the 12 end-of-month contents of San Juan-Chama water stored in Elephant Butte Reservoir for the City divided by 12. The end-of-month content of San Juan-Chama Project water stored in Elephant Butte Reservoir for the City shall be the amount of water computed by the Bureau of Reclamation for accounting of San Juan-Chama water as directed by the Rio Grande Compact Commission. The City shall be credited in an amount not to exceed the total annual storage charge for the amount of increase in power revenues due to additional head resulting from storing City water in the reservoir. Payments will be made to the United States by the City within 30 days of billing, and payment in arrears by 30 days shall draw interest computed at the rate of 1 percent per month or any portion thereof.

6. The use of the facilities of Elephant Butte Reservoir by the City under the terms hereof is a cooperative effort to assist in temporarily providing a facility in which to store the current excess supply for future use; and, by reason thereof, the United States shall not be liable in damages for any loss of water stored for the City by reason of its operation or maintenance of the dam and facilities.

7. This agreement shall be effective upon its execution and shall continue for the period through December 31, 1979. Thereafter, the term of this agreement shall be extended automatically for a period of 2 years from the date of expiration of the original term, or any subsequent term; provided, however, that either party may terminate this agreement without cause at the end of any calendar year by notifying the other party hereto, in writing, at least 1 year in advance of the termination date. Should either party hereto provide such notice of termination to the other party, this agreement shall continue for the balance of the year in which the notice is given and the following year and shall automatically terminate at the end of that year without further obligation on either party hereto, except as provided in paragraph 8 hereof, beyond the performance of all obligations required of either party hereto through December 31 of the year following that year in which said notice of termination shall have been given.

8. The termination of this agreement, pursuant to paragraph 7 hereof, shall terminate all rights of the City to store any further or additional water in Elephant Butte Reservoir but shall not terminate this agreement insofar as that water which is stored in Elephant Butte Reservoir and as to such water this agreement remains in full force and effect.

9. Any notice, demand, or request, authorized or provided to be given to either party in connection with this agreement shall be deemed properly given if delivered or mailed by certified mail, postage prepaid, to the respective party at the address set forth below:

City of Albuquerque
Attention: City Manager
Post Office Box 1293
Albuquerque, NM 87103

Regional Director, Southwest Region
Bureau of Reclamation
Herring Plaza Box H-4377
Amarillo, TX 79101

Either party may at any time, by written notice to the other, change the designation or address specified above.

10. This agreement shall not be assigned or transferred by either party without written consent of the other party. Should the interest of either party hereto be succeeded to by any successor or assign of either party hereto, this agreement shall apply to and be binding upon any and all successors and assigns of the parties hereto.

11. No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, we have hereunto set our hands and seals the day and year first hereinabove written.

REVIEWED BY THE LEGAL
DEPARTMENT:

William T.
Assistant City Attorney

UNITED STATES OF AMERICA

By Robert H. Weimer
Regional Director, Southwest Region
Bureau of Reclamation

(SEAL)

CITY OF ALBUQUERQUE

ATTEST:

By David Rusk
Mayor

City Clerk/Recorder

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
FIELD SOLICITOR
1106 HERRING PLAZA
AMARILLO, TEXAS 79101

5-3-72

April 27, 1972

To: Regional Director, Amarillo

From: Field Solicitor, Amarillo

Subject: Proposal by City of Albuquerque to secure permission to store water in El Vado Reservoir - San Juan-Chama Project, New Mexico

You have orally requested an opinion of this office concerning the position of the Bureau of Reclamation and the Department of Interior should the City of Albuquerque request release of San Juan water to it at the outlet works of Heron Dam, and then arrange to store some part of that water in El Vado Dam and Reservoir, or elsewhere.

It is the opinion of this office that the proposal as outlined above is a matter which should be handled at the State level and there are no statutory provisions or contract commitments requiring the Department of Interior or the Bureau of Reclamation to take any position other than to require compliance with existing agreements including the Rio Grande Compact.

The basis for this conclusion, and an analysis of various pertinent laws, the Rio Grande Compact, and contract provisions follow:

SAN JUAN-CHAMA RECLAMATION PROJECT ACT OF JUNE 13, 1962

Section 8 of Public Law 87-483 (76 Stat. 96) dated June 13, 1962, contains authorization for the San Juan-Chama Reclamation Project. It itemizes the principal engineering works of the initial stage development as:

> ". . . involving three major elements, (including) diversion dams and conduits, storage and regulation facilities at the Heron No. 4 Reservoir site, enlarged outlet works of the existing El Vado Dam, and water use facilities consisting of reservoirs, dams, canals, lateral and drainage systems, and associated works and appurtenances."

Nothing in the above listing implies any control of water facilities used by the beneficiaries of the project after delivery of project water to them. Subsection (c) provides that:

> "(c) all works of the project shall be constructed so as to permit compliance physically with all provisions of the Rio Grande compact, and all such works shall be operated at all times in conformity with said compact;"

Here again, as throughout all Federal authorizations pertaining to project development in this area, emphasis is made upon compliance with preferential rights established by the Rio Grande compact. This 1962 law does not include any limitations upon the use of storage facilities within the State other than those constructed as project features.

There are other statements contained in the authorizing legislation as well as in the existing repayment contracts which are conclusive that there is no requirement limiting the storage of water to Heron Dam. Section 8 provides for construction of the initial stage of the project to serve the 4 listed tributary irrigation units. The principal engineering works authorized include "water use facilities consisting of reservoirs, dams, canals, laterals, and drainage systems, etc."

COLORADO RIVER STORAGE PROJECT ACT
OF APRIL 11, 1956

Section 2 of the Colorado River Storage Project Act reads in part as follows:

> "Provided, that with reference to the plans and specifications for the San Juan-Chama project, the storage for control and regulation of water imported from the San Juan River shall (1) be limited to a single offstream dam and reservoir on a tributary of the Chama River, . . ."

No part of the above segment of the Colorado River Storage Project Act would be violated by any decision of the City of Albuquerque to store project water released to it at the outlet works of the Heron dam and reservoir. The Colorado River Storage Project Act specifically authorizes the Secretary of the Interior to perform the functions therein set forth, subject to the limitations established. It does not pretend to direct any rights State entities may have to utilize existing features and facilities. In fact the Congress lacks the authority to express such limitations on State entities as these States are sovereign in their own right. This statement is not intended to imply that the City of Albuquerque or any other entity has a vested right to use any storage facilities without the express consent of the entity in control of that feature, and in strict compliance with all rules, regulations and laws of the State, and in compliance with any contracts and compacts relating to the area involved.

RIO GRANDE COMPACT

The Rio Grande Compact of May 31, 1939, is an agreement among the States of Colorado, New Mexico and Texas, pertaining to the use of the water of the Rio Grande above Fort Quitman, Texas, for the purpose of effecting an equitable apportionment of such waters.

Thus the contract is not designed to and does not intend to include within its restrictive covenants instructions pertaining to the use of imported water other than from the Rio Grande. In fact the Compact specifically recognizes and endorses the right to import such water.

Article 1, Section (f) defines "transmountain diversion" as "water imported into the drainage basin of the Rio Grande from any stream system outside of the Rio Grande Basin, exclusive of the Closed Basin." Thus any discussion in the Compact pertaining to control of water relates to the waters of the Rio Grande, as imported water is referred to by the definition as "transmountain diversion."

Having the above statement in mind, conditions in Article 7 of the Compact concerning increases in the amount of water in storage, and references in Article 8 to the release of water from reservoir storage have particular reference to storage of waters of the Rio Grande Basin.

Endorsing this conclusion, Article 9 comprises the agreement of Colorado and New Mexico pertaining specifically to construction of the necessary works for diverting the waters of the San Juan River, or any of its tributaries, into the Rio Grande.

Article 10 again is most specific in recognizing a separate right to utilize imported waters by the benefitting State. It reads:

> "In the event water from another drainage basin shall be imported into the Rio Grande Basin by the United States or Colorado or New Mexico, or any of them jointly, the State having the right to the use of such water shall be given proper credit therefor in the application of the schedules."

Thus in summary, it is the conclusion of this office that a proposal to store water in El Vado which has been released to the City of Albuquerque at Heron is not basically objectionable to the Compact. This does not mean, of course, that the City can avoid securing the privilege of storage from the Middle Rio Grande Conservancy District, nor does it intend to imply that the plan of storage, release, and of water accounting, should not be approved by the members of the Rio Grande Commission, as not interfering with or violating vested rights under the Compact.

REPAYMENT CONTRACT - CONSERVATION DISTRICT STORAGE OF PROJECT WATER IN EL VADO DAM AND RESERVOIR

Article 10 of the amendatory contract between the United States and the Middle Rio Grande Conservancy District dated June 25, 1963, reads as follows:

> "10. To the extent permissible under existing agreements and so long as the United States is operating El Vado Reservoir, it shall accept from the District and store in El Vado Reservoir any waters the District is entitled to receive under the provisions of this contract and for which space is available, for release as requested by the District. Evaporation losses shall be calculated by the Contracting Officer and shall be deducted from water stored hereunder to determine the quantity of stored water remaining available for release to the District under this contract."

By the above language the United States has agreed that storage of San Juan-Chama Project water in El Vado Dam and Reservoir is not objectionable to it. Thus precedent is again established for permitting the City of Albuquerque the same privilege insofar as the United States is concerned.

REPAYMENT CONTRACT

CITY OF ALBUQUERQUE CONTRACT DATED JUNE 25, 1963

AS AMENDED AND SUPPLEMENTED

The basic water use provisions of the San Juan-Chama Project pertaining to the City are contained in Articles 18d and 18e which read:

> "d. City Water Rights - The City and its agents and assigns shall have the exclusive right to use and dispose of that share of the project water supply available and allocated to municipal water supply purposes subject to payment on a current basis of such charges as are provided for in this contract. Water may be used or disposed of for any purpose desired by the City from time to time, either within or without the territorial limits of the City as such limits shall be changed from time to time. Such use or disposal may be by diverting and applying such water directly from the Rio Grande stream system, by diverting and applying underground water utilizing project water to offset the adverse effects of such underground water withdrawals heretofore or hereafter made from the Rio Grande stream system, or otherwise as the City may desire. Upon completion of repayment of that portion of the City's water supply costs based upon a share of project construction costs, together with the interest thereon, and so long as costs based upon expenses for the operation and maintenance of the project works are paid, the City shall have a permanent right to the use of that portion of the project water supply allocated to its use herein.
>
> "e. Annual Water Carryover Prohibited - Rights to use water vested in the City by this contract shall be allowed on an annual basis, and no credits covering any unused water shall be allowed to carry over to any subsequent calendar year."

Use by the City, insofar as this contract and this project are concerned, consists of a demand for delivery by the City. Under the contract water leaves the project when it is requested for release or diversion from project storage at Heron. The opening statement of Section 13j reads "The project is designed to furnish an estimated firm yield from proposed storage. . ." Any user on any project can control its actual deliveries to the ultimate consumer by regulating reservoirs or other storage features. This is common practice, particularly in municipal requirements. Article 18j as amended, also includes the following language:

> ". . . In utilizing the available water supply to the extent permitted by law from the water rights available to the project, the City shall take its municipal water requirements at Heron Dam at the point designated by the Contracting Officer. The responsibility of the United States shall cease at the point of delivery. . . ."

This restates our conclusion that the responsibility of the United States ceases with delivery to the City, so that whatever arrangements it makes beyond that point is a local responsibility contingent, of course, upon compliance with existing agreements, rules, regulations and laws of the State of New Mexico.

Thus in support of the summary statement contained in the opening provisions of this letter, all Federal statutes, project contracts, and the Rio Grande Compact contain no limitation or prohibition upon the action under consideration by the City of Albuquerque, other than the storage is subject to the conditions specifically set forth in those documents.

Frederic K. Gray

Frederic K. Gray

OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

JUN 27 1972

Memorandum

To: Field Solicitor, Albuquerque

From: Acting Associate Solicitor,
Water and Power Resources

Subject: Interpretation of the Water Supply Act of 1958,
72 Stat. 319; 43 U.S.C., Sec. 390(b); and the
Colorado River Storage Project Act of 1956,
43 U.S.C., Sec. 620(a).

This is in response to your memorandum of May 26, 1972, regarding the proposal by the City of Albuquerque to operate a recreation center and park at a reservoir constructed by the Corps of Engineers on the Jemez River. The principal question of concern to this office is with reference to language in Section 2 of the Act of April 11, 1956, the Colorado River Storage Project Act. That section states, in part, as follows:

> "That with reference to the plans and specifications for the San Juan-Chama Project, the storage for control and regulation of water imported from the San Juan River shall (1) be limited to a single offstream dam and reservoir on a tributary of the Chama River . . ." (emphasis added).

The proposal contemplates effecting an exchange of water between Heron Reservoir, a feature of the San Juan-Chama project, and the Corps' Jemez Reservoir. This exchange would not be inconsistent with the purpose of the above statutory language, which was intended to limit authorization to the construction of one reservoir only. This has been accomplished through construction of the Heron Reservoir. Storing water by exchange at Jemez Reservoir would not be for the "control and regulation" of imported water.

We therefore cannot see any legal objection to the City's proposal, subject to the many details including payment under the contract between the City and the United States for the storage of water in Heron Reservoir. These details, including satisfactory arrangements with the Santa Ana Indians, must of course be worked out before the proposal can be finally consummated.

Roland G. Robison Jr.

Roland G. Robison, Jr.
Acting Associate Solicitor
Water and Power Resources

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

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RS,
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Mr. C. J. Kuiper
State Engineer
Division of Water Resources
Department of Natural Resources
1313 Sherman Street, Rm. 818
Denver, Colorado 80203

Dear Mr. Kuiper:

This is in response to your letter dated October 20, 1978 asking for an interpretation of the Colorado River Storage Project Act of 1956, Pub. L. No. 84-485, § 2, 70 Stat. 106 (1956) and the San Juan-Chama Project Act of 1962, Pub. L. No. 87-483, § 8, 76 Stat. 97 (1962), as they relate to water storage in the Heron Reservoir.

Our office has made a careful analysis of those two Acts, with particular emphasis on the sections set forth in your letter. Before explaining our interpretation of those sections, I must point out a significant error in quoting section 8(g) of Pub. L. No. 87-483; that is, your letter describes Congress as providing that nothing in the 1962 Act should be construed as committing Congress "to future authorization of any additional storage of the San Juan-Chama Project," while in fact section 8(g) refers to "any additional stage" of the San Juan-Chama Project. (emphasis added). I suspect this error may have been important in leading you to believe that storage of San Juan-Chama Project water in reservoirs other than Heron is, in your word, "questionable."

In authorizing the San Juan-Chama Project in 1962, Congress chose only to authorize the construction of the "initial stage." The plan as submitted by the Department of the Interior, however, had provided for a more comprehensive scheme. See Colorado River Storage Project, H.R. Doc. No. 364, 83d Cong., 2d Sess. 4 (1954).

Because of this plan, Congress consistently used the words "initial stage" to identify the San Juan-Chama Project in the 1962 Act. See, e.g., § 1, § 8, § 9. Section 8(g) merely reiterates this point, to clarify that only the "initial stage" of the plan is authorized. See U.S. Code Cong. & Adm. News 1681.

The storage of project water at Elephant Butte is an operations problem which has, under section 8 of the 1962 Act, been committed to the Rio Grande Compact Commission and other named entities. Although the earlier Act had directed the Secretary, in completing planning reports on the San Juan-Chama Project, to limit the plans to a single offstream storage dam and reservoir, the limitation was with reference to trans-basin diversion facilities then under consideration and not to the operational problem of accounting for project water once it entered the Rio Grande.

Therefore the sections that you cite, when read correctly and in the context of Congress' purpose, were not intended to prohibit the storage of San Juan-Chama water in downstream reservoirs such as Elephant Butte.

I trust this answers your inquiry. If our office can be of further assistance, please feel free to contact us.

Sincerely,

Frederick N. Ferguson

DEPUTY SOLICITOR

cc
Regional Solicitor, Denver
Regional Solicitor, Tulsa

See Albuquerque Field Sol. Memo, 5/26/72

RESOLUTION OF THE RIO GRANDE COMPACT COMMISSION

May 3, 1974

"WHEREAS, certain entities in the State of New Mexico have contracted with the Secretary of the Interior for water from the San Juan-Chama project and may be benefitted by the storage of their imported San Juan-Chama project water at Abiquiu Reservoir by the Corps of Engineers, and

WHEREAS, the Corps of Engineers has decided that imported water could be stored in Abiquiu Reservoir for release upon the demand of the owners thereof only if the Rio Grande Compact Commissioner for each of the States of Colorado, New Mexico and Texas does not object to such storage;

NOW THEREFORE, BE IT RESOLVED, that the Rio Grande Compact Commissioner for each of the States of Colorado, New Mexico and Texas, assembled in annual meeting of the Rio Grande Compact Commission in Albuquerque, New Mexico on May 3, 1974, hereby grants his consent to the storage of imported San Juan-Chama project water in Abiquiu Reservoir for release on demand of the owners thereof so long as Rio Grande water has prior right to usage of the capacity of the channel of Rio Chama and this San Juan-Chama project water may not be released so as to interfere with the passage of Rio Grande water in the channels of the Rio Chama or Rio Grande; and provided further, that water accounting for San Juan-Chama project water stored and discharged from Abiquiu Reservoir will be established by the Rio Grande Compact Commission;

BE IT FURTHER RESOLVED, that copies of this Resolution be furnished to the District Engineer, Corps of Engineers and the Regional Director, Southwest Region, Bureau of Reclamation."

#1 (PASSED)
March 29, 1979

RESOLUTION

WHEREAS, the City of Albuquerque contracted for delivery of San Juan-Chama Project water by contract dated 25 June, 1963, as amended by contract dated 6 July, 1965, and

WHEREAS, the City of Albuquerque will not need the total quantity of water available under this contract for municipal purposes for many years; and

WHEREAS, the City of Albuquerque desires to store in Elephant Butte Reservoir and hold available for future use, subject to evaporation loss on the stored water, a portion of the San Juan-Chama Project water available under contract and not presently needed for municipal purposes, and

WHEREAS, the United States Bureau of Reclamation, the Elephant Butte Irrigation District and the El Paso County Water Improvement District No. 1 offer no objection to the storage of water in Elephant Butte Reservoir for the City of Albuquerque, and

WHEREAS, the implementation of storage of the City of Albuquerque's San Juan-Chama Project water in Elephant Butte Reservoir would require that certain procedures having no effect on Rio Grande Compact provisions be agreed to by the Rio Grande Compact Commission for accounting of San Juan-Chama Project water in Elephant Butte Reservoir;

NOW, THEREFORE, BE IT RESOLVED, by the Rio Grande Compact Commission that the Commission agrees for the purpose of accounting for San Juan-Chama Project water stored in Elephant Butte Reservoir for the City of Albuquerque:

1) the term "usable water" as defined in Article I of the Rio Grande Compact shall not include San Juan-Chama Project water stored in Elephant Butte Reservoir;

2) in the determination of "actual spill" as that term is defined in Article I of the Rio Grande Compact, neither the spill of "credit water," as that term is defined in Article I of the Rio Grande Compact, nor "actual spill" shall occur until all San Juan-Chama Project water stored in Elephant Butte Reservoir shall have been spilled;

3) in the event of spill of San Juan-Chama Project water from Elephant Butte Reservoir, none of the San Juan-Chama Project water stored in that reservoir under the provisions of Public Law 93-493 shall be spilled until all of the water stored for the City of Albuquerque shall have been spilled;

4) the amount of evaporation loss chargeable to San Juan-Chama Project water stored in Elephant Butte Reservoir for the City of Albuquerque shall be that increment of the evaporation loss from the reservoir resulting from the storage of San Juan-Chama Project water for the City of Albuquerque; the evaporation loss from the reservoir shall be taken as the difference between the gross evaporation from the water surface of Elephant Butte Reservoir and the rainfall on the same surface, and

5) nothing herein shall be construed to alter, amend, repeal, modify or be in conflict with the provisions of the Rio Grande Compact.

June 25, 1981

TESTIMONY OF MAYOR DAVID RUSK, CITY OF ALBUQUERQUE
AT U. S. SENATE PUBLIC WORKS SUBCOMMITTEE
HEARING ON SENATE BILL # 620

The City of Albuquerque appreciates the opportunity to provide information on the impact of SB #620 on the citizens of Albuquerque and the State of New Mexico. We feel that the portion of SB 620 dealing with the storage of San Juan/Chama water is a clarification of the original intention of Congress when the legislation authorizing the San Juan/Chama Project was approved. The authorization contained in the Bill for water storage will benefit all of the San Juan/Chama water contractors, and will maximize the benefit of our participation in the project.

We respectfully request that your subcommittee and the Congress support and approve SB 620 which would allow Albuquerque and the other San Juan/Chama water contractors to store their respective allocations of San Juan/Chama water in appropriate New Mexico Reservoirs. The following discussion summarizes the City's current use of the San Juan/Chama water and illustrates the advantages of water storage for existing and potential users.

The principal beneficiaries of San Juan/Chama water storage are the residents of the Middle Rio Grande Valley, including the citizens of Albuquerque. Storage of San Juan/Chama water in both Abiquiu and Elephant Butte Reservoirs and any other appropriate facility will extend, by ten years or longer, the time when Albuquerque would require additional water rights. These additional water rights would have to be acquired through condemnation proceedings of irrigation water rights and the effect of this procedure would be to acquire water rights from presently irrigated farmland. This would diminish the agricultural activities in the Valley and hasten the urbanization of rural greenbelt areas.

Since 1972, when Albuquerque started receiving its annual allocation of San Juan/Chama water, our position has been to make our water available to all users in the Rio Grande Valley in New Mexico. While any portion of the water remains surplus to our municipal needs we will continue to sell or trade, as in the case of the Middle Rio Grande Conservancy District, water to assist other municipalities, irrigation district or private enterprise in the State. To date, our water sales have been made to the cities of Santa Fe and Los Alamos along with sales to numerous small business activities such as construction firms needing water, mobile home parks and mining operations. We also have an agreement with the U. S. Forest Service to sell water for tree seedling growth for the forests in New Mexico, Utah, Colorado, and Arizona. The charge for the water sales is determined by our cost per acre foot as a participant in the San Juan/Chama Project.

The contract between the City and the Middle Rio Grande Conservancy District allows for storage in El Vado Reservoir and makes available our San Juan/Chama water to the District for irrigation use in the Middle Rio Grande Valley. The specified arrangements are for the District to replace within a ten-year period any City water that is used by them under the contract. In 197~~8~~7, the District used 40,164 acre feet of Albuquerque's water in storage to supplement the natural water supply which was insufficient to meet the demands of the irrigators. This water enabled the farmers to complete their irrigation requirements for the 197~~8~~7 growing season. A large portion of the borrowed water was replaced in 1980 due to two consecutive years of abundant runoff. The District is borrowing our water again this year due to the extremely dry winter and spring on the watershed. This repeated use of our water by the District makes evident the value of storage of San Juan/Chama Project water.

In addition to San Juan/Chama water stored in El Vado Reservoir, we have, since 1974 stored water in Abiquiu Reservoir. Our agreement with the Corps of Engineers for Abiquiu storage provides for storage of water in the unused portion of the sediment pool. The City has leased private land, paid approximately $60,000 for archeological investigation and paid the Corps annually for the increased operation and maintenance caused by our water storage. These expenditures resulted from the commitment to not increase the federal costs for San Juan/Chama contract water storage.

The point of this discussion is that without the storage capability provided by El Vado and Abiquiu Reservoirs we would not have the water available for these uses. In addition, we are currently negotiating with a large agricultural water user in Sierra County in southern New Mexico to assist in the development of an 8000 acre vineyard with significant economic and employment benefits. We also have received water availability inquires from the Elephant Butte Irrigation District. These two proposed water uses would require storage in Elephant Butte Reservoir. It seems clear that in order to maximize the beneficial use of Albuquerque's San Juan/Chama water in New Mexico, storage in all appropriate reservoirs should be authorized subject to arrangements with the respective operator of the facility.

Through 1981 the citizens of Albuquerque will have paid approximately $6.2 million in construction and operation and maintenance costs to the Federal Government as the City's proportionate share of the project costs. At the end of the fifty-year payment period the amount will total over $60 million. This financial commitment on the part of the City represents its concern for an adquate water supply to maintain its responsibility for population and economic growth. Even though the water is not currently used in the system, our present water consumption is building a debt to the Rio Grande which will be offset in the future by the use of San Juan/Chama water. The water will be released from storage incrementally each year consistent with our water rights obligation to the Rio Grande in that year. Since Albuquerque's very early participation in the San Juan/Chama Project in 1951, when we submitted supporting resolutions to Congress, this system of water releases was contemplated to meet our future obligations. With holdover storage prohibited in Heron Reservoir, the only reasonable method of making releases in amounts equal to our obligation is to store the water in other reservoirs. Controlled releases can then be made without forfeiting the entire annual allocation. Clearly, then, it was certainly the intention of Albuquerque to be able to store its water until needed, and we believe, it was also the intention of Congress, while not specifically authorizing it, to not prohibit storage of contracted water in reservoirs other than Heron.

STATEMENT
PRESENTED AT HEARING ON S620, ALBUQUERQUE, NM

BY

LTC JULIAN E. PYLANT, COMMANDER
U.S. ARMY ENGINEER DISTRICT, ALBUQUERQUE

2 JULY 1981

INTRODUCTION

1. I appreciate the opportunity to present testimony on Senate Bill 620. The Bill contains three items that directly relate to the Corps of Engineers and the Albuquerque District; Authorization to improve levees in the vicinity of Albuquerque, storage of 200,000 acre-feet of San Juan - Chama Project water in Abiquiu Reservoir, and authority to expend an additional $300,000 for the recovery of cultural resource data at Santa Rosa Lake.

MIDDLE RIO GRANDE FLOOD PROTECTION PROJECT

2. The flood control project which would be authorized by the Bill is the Middle Rio Grande Flood Protection Project. It is the result of a feasibility study initiated in 1975 in response to a House of Representatives Resolution dated April 11, 1974 and earlier Senate Resolutions dated July 17, 1969 and June 28, 1956.

3. The study area along the Rio Grande between Bernalillo to Belen, New Mexico, contains 110 square miles of flood plain, has 150,000 residents and $2.5 billion worth of property in the flood plain. The flood threat stems from a 1,100 square-mile uncontrolled drainage area below Cochiti, Jemez and Galisteo Dams and upstream from the study area which is capable of generating floodflows from summer storms which exceed the capacity of the

existing levee system. Present flood protection on the Rio Grande ranges from 7,500 c.f.s. channel capacity at Corrales and Belen to 42,000 c.f.s. channel capacity at Albuquerque.

4. Alternative structural solutions to the flooding problem considered in the study were:

a. A series of tributary dams in the contributing watershed area;

b. dredging and improving the Rio Grande channel through the urbanizing reach;

c. raising and rehabilitating the Rio Grande levees; and

d. combinations of these measures.

5. Nonstructural alternative solutions considered include flood plain management, flood plain evacuation, and floodproofing. After complete analyses and evaluation of all alternatives, the report Middle Rio Grande Flood Protection Interim Feasibility Report, Bernalillo to Belen, New Mexico, was completed by the Albuquerque District in September 1979. The Board reviewed the findings and issued its report on June 2, 1980. The Chief of Engineers finalized his recommendations and forwarded both reports in June 1981 to the Secretary of the Army for coordination with the Office of Management and Budget and the Water Resources Council and submission to Congress. It should be noted that the Board's report was dated June 2, 1980 not September 14, 1979 as indicated in Senate Bill 620.

6. The recommended flood protection plan contained in the Board of Engineers for Rivers and Harbor report would raise and rehabilitate 62.3 miles of the

existing Rio Grande levee to protect Corrales, Mountainview (south valley of Bernalillo County), Los Lunas, portions of Isleta Indian Reservation, and Belen, New Mexico, from flows in the Rio Grande not exceeding 42,000 c.f.s. The Albuquerque reach of the levee system presently has this level of protection. The permanent loss of 105 acres of bosque woodlands and temporary loss of another 150 acres is expected to be unavoidable upon implementation of the plan. An intensive study is presently underway to develop a variety of possibilities to mitigate ~~the best possible approach to mitigation of~~ those losses. As indicated in S620 , the total Federal first cost of the recommended plan in 1980 dollars would be $33,224,000. Since total cost would be about 35 million, the local obligation would be about $1,776,000 based on the traditional cost sharing formula generally defined by the 1936 Flood Control Act. The average annual cost over the life of the project is $2.74 million. The average annual benefits provided by the recommended project is 4.03 million, yielding a benefit-to-cost ratio of 1.5.

STORAGE OF SAN JUAN - CHAMA WATER IN ABIQUIU RESERVOIR

7. Next let me address Section 2(b) of S620 which would authorize the Chief of Engineers to enter into agreements for the storage of San Juan - Chama water in Abiquiu Reservoir.

8. House Document 243, 81st Congress, 1st Session, proposed the construction of Chiflo, Chamita, and Jemez Canyon Dams and Reservoirs, and the Rio Grande and Bluewater Floodways. Congress, by the Flood Control Act of 1948 (Public Law 858, 80th Congress, 2nd Session, Ch 771), approved the comprehensive plan of improvement for the Rio Grande Basin as set forth in House Document 243

and, with the exception of Chiflo Dam and Reservoir, authorized all of the recommended flood control projects for construction. The Chamita project, as originally planned, provided for a high dam to be constructed at river mile 5 on the Rio Chama. However, during the preconstruction planning stage, a superior substitute plan was developed. This plan comprised two dams, a low dam located at about the original site and a high dam located near the town of Abiquiu about 27 miles above the Chamita site. The substitute plan was approved by both the Senate and House Appropriation Committees during the Fiscal Year 1955 hearings. Construction of the dam for the authorized purposes of flood and sediment control only began at Abiquiu in 1956. It was completed and placed in operation ~~18~~ in February 1963. Let me emphasize that water supply is currently not an authorized purpose of the project.

9. The most economical design for Abiquiu Dam consisted of building the dam much higher than required to contain the sediment and flood control pools, a total of 575,000 acre-feet. It proved less costly to store the spillway design flood to assure structural integrity of the dam in lieu of excavating a large enough spillway through rock to pass the same flood. Consequently, under the original design, about 1/2 of the reservoir's capacity of 1,215,000 acre-feet was to insure that the dam would not be overtopped. More recently, the possibility was raised that part of this storage capacity could be used for other purposes, in particular, for temporary storage of allocations of San Juan - Chama Diversion water that is in excess of the recipients' near-term needs. For this and other reasons (e.g., flood damages, inadequate drainage, and limited channel capacity downstream of the project), the

Congress, by Senate Resolution of December 5, 1975, requested the Corps of Engineers to review the report "The Rio Grande and Tributaries, New Mexico" in order to determine "whether any addition or modification should be made to the recommendations contained therein, with particular respect to the existing Abiquiu Dam in the interest of flood control, water supply, irrigation, recreation, fish and wildlife enhancement, power, and other related water and land resources needs."

10. The majority of the 502,000 acre-feet of flood storage in the Abiquiu project is to control snowmelt floods. Floods of this type are predictable, since the snowpacks which produce the snowmelt floods are measured and prediction of runoff made each month starting in January of each year. This being the case, water stored in the flood pool for conservation, or other purposes, can be evacuated during the winter and early spring months to make room for the anticipated snowmelt runoff. This type of operation would allow the storage of San Juan - Chama waters, as proposed in Senate Bill 620, without impacting on the current authorized purposes of flood and sediment control.

11. The storage of San Juan - Chama water in Abiquiu Dam has the potential to be extremely beneficial to the water needs in New Mexico. The banking, so to speak, of these waters offers the potential to satisfy short term critical needs such as the current irrigation water shortage in the Middle Rio Grande Valley caused by the poor winter snow fall. It also provides opportunities to satisfy short term water needs (10-25 years) to new industrial uses. The storage of these waters also would provide the opportunity for hydropower

development, increased recreation opportunities, as well as extending the period when the San Juan - Chama water users will have to seek additional sources of water.

CULTURAL RESOURCES IN SANTA ROSA LAKE

12. Finally, Senate Bill 620 would authorize the expenditure of funds in excess of the 1 percent limit permitted by Public Law 93-291 to recover cultural resources data at Santa Rosa Lake. A total of 250 archeological sites have been identified during field studies by the National Park Service and Southern Methodist University. Of these, 130 have been determined eligible for the National Register of Historic Places. The sites range from 5,000-year old campsites and rockshelters where Indian families left grinding stones and scraping tools to the remains of European settlers and ranchers of the 18th~~e~~ and 19th centuries.

13. To date, the Corps of Engineers has spent $246,000 to obtain scientific data from about 70 of the National Register eligible sites. An additional $153,000 has been expended to excavate one historic village known as "Site 48."

14. The Corps has expended all available funds within the 1 percent statutory limit established by Public Law 93-291.

15. The Historic Preservation Office of New Mexico, the U.S. Advisory Council on Historic Preservation, and the Corps of Engineers, Albuquerque District have concurred in the existing Memorandum of Agreement for cultural resources investigations at Santa Rosa Lake. The plan calls for additional work on the remaining 60 National Register sites in the amount of $300,000.

Thank you.

HEARING ON SENATE BILL 621, 97TH CONGRESS, 1ST SESSION.

BEFORE SENATOR PETE DOMENICI
ALBUQUERQUE, NEW MEXICO
JULY 2, 1981

STATEMENT OF ROBERT J. NORDHAUS
GENERAL COUNSEL
JICARILLA APACHE TRIBE

Senator Domenici, as President Atole has stated, the Jicarilla Apache Tribe is entirely dependent on the Navajo River for its domestic and municipal water and for water for irrigation and future industrial uses. The Tribe's Winters Doctrine rights have not been adjudicated, but under that doctrine, waters are reserved for the use of the Tribe to the extent needed to provide for its future needs. As President Atole stated, the United states District Court, District of Colorado, found in Schutz v. Stamm that the Tribe's rights in the Navajo River had been damaged as a result of the diversion.

Appendix D-2 of the Bureau of Reclamation's Report on the San Juan-Chama Project set forth certain minimum flows to be maintained in the Navajo and Blanco Rivers for the preservatin of fish and aquatic life and for protection of Colorado water users. The Bureau of Reclamation has interpreted the Act to require that all of the flows of the Navajo and Blanco Rivers above the minimum statutory by-passes are required to be diverted unless Heron Dam is full and no water is required for the San Juan-Chama water project. In other words, the San Juan-Chama Project users were given under this interpretation a prior water right regardless of other rights on the Blanco and Little Navajo and Navajo Rivers to the entire flow of the three streams, less the minimum by-pass requirements of Exhibit D-2 OF the Bureau of Reclamation San Juan-Chama Report.

The Jicarilla Apache Tribe had filed suit against the Secretary of Interior in 1975 asking that the Secretary be prohibited by diverting more water than could be beneficially used. This case, after going to the Supreme Court of the United States on other issues, was referred back to Judge Payne's Court in 1979. At that time, Albuquerque had entered into a contract with the Bureau of Reclamation to store its surplus water in Elephant Butte. It was obvious from the language of the contract and from a superficial study of the City's water needs and water resources, that Albuquerque would be unable to use all of its San Juan-Chama water for a number of years. The Tribe contracted for studies to be made to determine whether Albuquerque would really benefit from Elephant Butte storage. Dr. William Turner of Albuquerque Groundwater Consultants completed a study for the Tribe which was admitted in evidence in the District Court and which was not rebutted by any evidence of the Bureau of Reclamation, the New Mexico State Engineer or the City. In fact, neither the City nor the State, nor the Bureau of Reclamation, made studies to determine whether the long term storage in Elephant Butte would be of any benefit to the City. Dr. Turner's study, based entirely on City, State and Federal source material, indicated that the percentage of water lost versus the total water by-passed by the City and stored in Elephant Butte would vary from 91.42% to 97.61%, depending on certain variations in the projection.

Dr. Turner further testified without contradiciton that depletion of the river by Albuquerque in excess of its vested and San Juan-Chama water rights commencing around the year 2024 would adversely effect water users below Albuquerque and above Elephant Butte Reservoir, and that exchange by Albuquerque of water stored in Elephant Butte to offset these excessive depletions of the river at Albuquerque would not restore the flow in the river above Elephant Butte and would not make whole Middle Rio Grande water users.

Under the most likely of the City's scenarios, the City, under its 1979 contract with the Bureau would by-pass 1,121,000 acre feet to Elephant Butte over a 42 or 43 year period. 1,043,000 acre feet would be lost by evaporation during storage. The water available for exchange, which would be the only water benefitting Albuquerque, was only 78,854 acre feet less-than 7% of the total.

What really bothered the Tribe about this whole plan, was that nobody had given thought to the excessive loss involved. Mr. Gill, the Assistant Director of Albuquerque Water Resources Department, testified (Tr. Vol. II, p.128):

> Q: Did anyone in the city consider how much loss by evaporation there would be - if this water was stored for a long period of time?
>
> A: The amount of water to be put in the reservoir has not been determined, therefore, no estimate was made of the amount of loss.
>
> Q: What information was the mayor given as to how much water would be available for exchange at the end of the period?
>
> A: He was given no information.

The City at the trial claimed that there would be additional power generation. The question was asked (Tr. 128):

> Q: There were no studies made as to what additional power might be available with various amounts of storage in the river?
>
> A: I have seen none.

The City also claimed there would be increased recreational benefits. With regard to this the question was asked:

> Q. What studies were made as to additional recreational benefits to the citizens of Albuquerque arising out of a larger pool?

Mr. Gill answered:

> A. There were no particular studies that I am aware of that were made. Only the requests that Albuquerque has received over the last ten years from various interested parties to put additional water in Elephant Butte for recreational purposes.

Judge Payne, in his Opinion on page 5, summarized the City's plan and the effect of implementation of this contract. The Court said (page 5):

> By matching the City's projected demands as its available supply of combined Rio Grande San Juan-Chama Project water, one can project the City's projected surplus between now and the year 2025 A.D. Between now and the late 1980's or early 1990's, the City's annual surplus will equal 48,200 acre feet -- the amount of its San Juan-Chama Project allotment. Thereafter, the City's annual excess will decrease gradually from 48,200 acre feet to 0 by the year 2025. Summing up these yearly excesses shows that between now and the year 2025 A.D., Albuquerque would receive a surplus of approximately 1,121,900 acre feet of the San Juan-Chama Project water. This surplus is the subject of this lawsuit and will be referred to as the City's excess San Juan-Chama Project water.

The Court said, page 8:

> Here, the City has admitted that its annual supply will meet its annual demands until approximately the year 2025 A.D. If the City's excess San Juan-Chama Project water is stored in Elephant Butte solely for the purpose of providing for Albuquerque's future municipal needs, the water will not be put to actual use until the year 2025 A.D. (Footnote omitted). The Tribe's expert testified that such storage would result in over 90% of the water being lost to evaporation between now and the year 2025 A.D. (Footnote omitted). Moreover, even if every drop were somehow preserved, delaying the actual use of this scarce resource for forty-five years in an arid region such as the State of New Mexico is repugnant to the concept of beneficial use. Accordingly, the Court holds that storing Albuquerque's excess San Juan-Chama Project water in Elephant Butte Reservoir solely for the purpose of providing for Albuquerque's future municipal needs, would not constitute beneficial use.

The City argued that the City's excess San Juan-Chama water would be stored in Elephant Butte for the purpose of facilitating resales of water to other users, thus imputing a beneficial use to the City. The Court noted that at the trial date, one year before the water would be available for delivery, Albuquerque had not completed or arranged a single contract for the sale of its excess San Juan-Chama Project water. The Court concluded:

> Under these circumstances, the Court must conclude that Albuquerque wishes to store its excess water in Elephant

> Butte for speculation; has no plans for immediate sale to beneficial users, and such storage does not constitute beneficial use.

With regard to power generation, the Court noted that there was no concrete plan for electrical use of additional power generated. The Court said:

> Under the circumstances, the Court has no trouble concluding that the alleged hydroelectric beneficial use is a facade for the City's attempt to store the water for other possibly less legitimate uses.

The Court did hold that storage of water in Elephant Butte for recreation was a beneficial use. But on the other hand, found that Congress had not authorized this storage since the 1974 Act (P.L. 93-493) authorizing the storage of 50,000 acre feet of Albuquerque San Juan-Chama water in Elephant Butte was the limit of storage permitted by Congress.

We wish also to point out that Public Law 93-493 establishing the Elephant Butte Recreation Pool had a proviso that nothing in that Act should be construed to diminish, abridge or impair any water rights of the Jicarilla, Southern Ute, Navajo and Ute Mountain Ute Indians. The Act further stated:

> Releases as authorized by this title, should be discontinued or reduced upon a finding by a Court of competent jurisdiction that such releases are detrimental to such Indian water rights.

The Tribe submits, Senator Domenici, that the findings of Judge Matsch in Schutz v. Stamm in Colorado, constitutes a finding that the San Juan-Chama Project diversions are detrimental to Jicarilla Apache water rights on the Navajo River. The Tribe does not object to the present Elephant Butte Recreation Pool. It does, however, object to the waste which would result from storage in Elephant Butte of any San Juan-Chama Project water when that water can be beneficially used elsewhere.

The Tribe also submits that before additional storage of water in Abiquiu is authorized, that the State of New Mexico and the Bureau of Reclamation should study losses by evaporation in that reservoir over the period during which water is to be stored.

We are submitting as exhibits to this testimony Dr. Turner's report, the opinions of Judge Matsch in Schutz v. Stamm, the opinion of Judge Payne in Jicarilla Apache Tribe v. United States, et al., a copy of P.L. 93-493, and Resolution of the Tribal Council in opposition to P.L. 93-493, which is equally applicable to Senate Bill 621.

Robert J. Nordhaus

Robert J. Nordhaus, Attorney

JICARILLA APACHE TRIBE

ESTIMATES OF WATER LOST BY EVAPORATION IN ELEPHANT BUTTE RESERVOIR PURSUANT TO CITY'S 1979 CONTRACT WITH BUREAU OF RECLAMATION

(from Exhibits and testimony in *Jicarilla Apache Tribe v. United States of America, City of Albuquerque, et al.*, United States District Court, District of New Mexico, No. CIV. 75-742)

Dr. Turner's Report (Record, vol. VII, Plaintiff's Exhibit 24) and his testimony based upon other assumptions, estimated losses from Elephant Butte Reservoir storage as follows:

Projection	Water Bypassed to Elephant Butte*	Water Lost	Water Exchanged	Percentage Lost of Water Bypassed
City's 1973 Projection.	1,121,903	1,043,049	73,854	93.03%
City's Projection plus 7 yrs.(based on City's present use, Attachment 10 to Turner Report)	1,445,960	1,364,783	81,176	94.39%
Bypass of 60% of Authorized Releases **	335,083 ***	327,041 ***	8,042	97.61%
City's 1973 Projections with Channel losses Calculated. **	1,121,903	1,043,666 ***	78,237	93.03% ***
Projection, assuming no Inflow to Elephant Butte until 1985, all unused water bypassed, to Elephant Butte after 1985. Channel losses computed.	873,263 **	798,337 ***	74,926	91.42%

* All figures are in acre feet.

** Turner testimony on rebuttal.

*** Computed from Dr. Turner's testimony.

July 1, 1981

TO: Senator Pete V. Domenici
Senate Water Resources Subcommittee

SUBJECT: Testimony of the WEST SIDE ASSOCIATION, INC, reference Senate Bill 620

Dear Senator Domenici:

The West Side Association, Inc, with offices at 3200 Coors N.W., Suite E, Albuquerque, New Mexico 87120, has been in existence for a period of 17 years. The Executive Director at this time is Mr. Don Bruckner.

The organization maintains a present membership of some 150 people, consisting of private residents, property owners, businessmen, institutional interests, real estate firms, builders and developers. The organization functions in the role of a Chamber of Commerce west of the Rio Grande.

The testimony of the organization is predicated on three accompanying exhibits. These are:

1 - A current publication by the real estate firm of Little-Brown and Company, Inc. entitled - PERSPECTIVE '81 - Albuquerque's West Side - An Investment Profile. This publication is the first contemporary, comprehensive overview of the total land area of the West Side of the City of Albuquerque, with discussion in depth as to demographics and other details concerning the area.

2 - Two articles reprinted from the Albuquerque TRIBUNE of Friday, June 5, 1981.

3 - An article titled - OVERVIEW OF ENERGY RESOURCES IN NEW MEXICO by P. R. "Bob" Grant, a geologist of considerable reknown here in our State of New Mexico.

The purpose of these exhibits is to display the role that the West Side of Albuquerque will play in the continuing growth and expansion of this city. Vital to this growth and expansion is the availability of water.

We believe the data and graphic information in the exhibits supports our belief as to the West Side's future and our strong conviction that nothing should be permitted to happen to the abundant water resources of this community that were carefully and providentially procured over the last fifty years by the prudent, visionary and courageous civic and governmental leaders we have had.

However, we would call to your specific attention that the West Side encompasses all of western Bernalillo County and the reservations and communities of the Laguna pueblo Indians and the Canoncito navajo Indians. These growing groups of people have indicated an interest in procuring, via some means, improved sources of water; perhaps by an arrangement with the City of Albuquerque. We can not assume to talk for these groups, but are pleased to provide you with contacts we have made on the matter, these being: Mr. Ed Plummer, Superintendent, Eastern Navajo Agency-BIA, P. O. Box 328, Crownpoint, N. M. 87313; and Mr. Tom Dowell, Canoncito Liaison Office, P. O. Box 338, Laguna, N. M. 87026.

Arthur W. Brown

Arthur W. Brown, Board Member
West Side Association, Inc.

97TH CONGRESS
1ST SESSION

S. 620

To authorize the construction of a project for flood control in the vicinity of Albuquerque, New Mexico, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 5 (legislative day, FEBRUARY 16), 1981

Mr. DOMENICI (for himself and Mr. SCHMITT) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To authorize the construction of a project for flood control in the vicinity of Albuquerque, New Mexico, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Army, acting through the Chief of Engineers, is authorized to construct a project for flood control in the vicinity of Albuquerque, New Mexico, in conformity with the report of the Board of Engineers for Rivers and Harbors, dated September 14, 1979, at an estimated Federal cost of $33,224,000: *Provided,* That the Chief of Engineers shall further be authorized to increase flood protection through the dredging of the river bed to an elevation lower than existed on the date of enactment of this Act.

SEC. 2. (a) The proviso of section 2 of Public Law 84–485 shall not be construed to prohibit the storage of San Juan-Chama project water acquired by contract with the Secretary of the Interior pursuant to Public Law 87–483 in any reservoir.

(b) The Chief of Engineers is authorized to enter into agreements with entities which have contracted with the Secretary of the Interior for water from the San Juan-Chama project pursuant to Public Law 87–483 for storage of a total of two hundred thousand acre-feet of such water in Abiquiu Reservoir. The agreements to thus store San Juan-Chama project water shall not interfere with the authorized purposes of the Abiquiu Dam and Reservoir project and shall include a requirement that each user of storage space shall pay any increase in operation and maintenance costs attributable to the storage of that user's water.

(c) The Secretary of the Interior is authorized to enter into agreements with entities which have contracted with the Secretary of the Interior for water from the San Juan-Chama project pursuant to Public Law 87–483 for storage of such water in Elephant Butte Reservoir. Any increase in operation and maintenance costs resulting from such storage not offset by increased power revenues resulting from that storage shall be paid proportionately by the entities for which the San Juan-Chama project water is stored.

(d) The amount of evaporation loss and spill chargeable to San Juan-Chama project water stored pursuant to subsections (b) and (c) of this section shall be accounted as required by the Rio Grande compact and the procedures established by the Rio Grande Compact Commission.

SEC. 3. The project for Santa Rosa Lake, Pecos River, New Mexico, authorized by section 203 of the Flood Control of 1954 (68 Stat. 1260), is hereby modified to authorize the expenditure of not to exceed $300,000 for the recovery of cultural resource data, in addition to any amounts authorized for this purpose pursuant to the Reservoir Salvage Act of 1960, as amended (88 Stat. 174).

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WATER RESOURCES POLICY ISSUES

FRIDAY, AUGUST 7, 1981

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES,
Juneau, Alaska.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senate ABDNOR. The Subcommittee on Water Resources will come to order. I apologize for being late. I'm certainly enjoying my visit in Alaska. I have been here for two other hearings. I am chairman of the Subcommittee on Appropriations covering the Treasury Department and the IRS and we have had some very interesting hearings in Anchorage and Fairbanks. This hearing is on one of my favorite subjects, water, and I was hoping and planning to have Senator Murkowski with me today. He will be here later in the day. He was unavoidable detained in Fairbanks. He will come in before our meeting is over.

I have had a very enjoyable time working with both Senator Stevens and Senator Murkowski on our IRS hearings. I am sure you are aware of the great respect and admiration for both of these gentlemen held back in Washington.

Senator Murkowski, this being his first term, is certainly gaining a great deal of respect and has become a strong and active voice for the people of Alaska. I can assure you of that.

It just so happens that he and I chair the two Senate subcommittees that authorize water resources development projects. Senator Murkowski chairs the subcommittee that handles projects of the Bureau of Reclamation; this subcommittee evaluates the activities of the Army Corps of Engineers.

Senator Murkowski is also a member of the subcommittee that I am chairman of, so he is very active in both committees.

Today's hearing has importance because of that shared interest. Further, it has importance because the Congress has the opportunity this year and the next to forge a new, innovative water resources policy, one that will meet the needs of our Nation for the 1980's and the 1990's.

At this afternoon's hearing, we will talk about hydropower needs, as well as other State-related water issues. Because of the lack of Federal money that will be available for an expanded water resources effort over the next 4 years, Alaska's innovative financing methods may serve as a model for State/national cooperation in many areas. It is my conviction that we will not begin to develop new water projects until there is closer cooperation between the

States and the Federal Government in both planning and financing projects.

In addition, we will today discuss the Corps of Engineers process in the evaluation of permit applications under section 404 of the Clean Water Act. The actual standards for section 404 come under the jurisdiction of a different subcommittee of our Committee on Environment and Public Works.

Nevertheless, we believe it is appropriate that this subcommittee review the process. This review will help advise Chairman John Chafee and his colleagues of the Environmental Pollution Subcommittee when they look more closely into this issue next year.

Again, may I reiterate what a pleasure it is to open today's hearing in Juneau, and I want you to know how much I appreciate being here.

Do you want to submit Senator Murkowski's statement?

Mr. **Devore**. If I could just submit the Senator's statement. He may go ahead and highlight this statement when he arrives here later this afternoon. As Senator Abdnor said, the Senator was unavoidably detained in Fairbanks and will be down as quickly as the airlines and air traffic controllers permit. I will submit his full statement for the record and just highlight very quickly his interest. As a new member of the Alaska delegation he is very interested in coming to a better understanding about the activities of the Corps of Engineers and has some very specific interest in some hydroelectric development and other navigational and water resources projects.

This afternoon we are going to hear some testimony on those four specific projects and some very innovative concepts presented by the State as well as highlighting some very important projects by the city of Juneau, as well as from the Alaska Power Administration.

We look forward to also hearing some very brief and just informational comments about the corps permitting process as this is just a very beginning on a long and perhaps arduous journey into the Clean Water Act and wetlands issues.

Thank you.

[Senator Murkowski's statement follows:]

OPENING STATEMENT OF HON. FRANK H. MURKOWSKI, U.S. SENATOR FROM THE STATE OF ALASKA

Senator **Murkowski**. I wish to welcome the chairman of the Subcommittee on Water Resources Development, James Abdnor of South Dakota, to Juneau, Alaska. The subcommittee is part of the U.S. Senate Committee on the Environment and Public Works on which we both serve. It has oversight responsibility for the U.S. Army Corps of Engineers, and it authorizes water projects such as waterways, boat harbors, and hydroelectric dams.

It is for the purpose of general oversight of the U.S. Army Corps of Engineers activities in Alaska that the subcommittee has called this hearing. There is a need to come to a better understanding about how the Corps of Engineers evaluates proposed projects. The process of funding for construction of projects will be reviewed. I hope we can focus on three particular project proposals in Alaska which are representative of the types of projects the corps has been asked to review and evaluate in the last few years. These projects are: The Bradley Lake Hydroelectric Project proposal, near Homer, the expansion of the Snettisham Hydroelectric Dam here in Juneau, and finally the proposal to dredge the Gastineau Channel as part of a proposal to construct and expand the harbor facilities in Juneau. I hope we will also take a critical look at the methods the Corps of Engineers and other State and Federal agencies use in administering the section 404 wetland dredge and fill permit applications.

Senator Abdnor and I have just come from a valuable onsight inspection with officials from the State of Alaska, Department of Environmental Conservation. The type of situation we saw today is typical of many areas of Alaska. Under section 404 of the Clean Water Act, Public Law 92-500, as amended, the Corps of Engineers was given responsibility for approving permits for dredging and filling navigable waters and their tributaries. Section 404 has been interpreted so that virtually all the lands in Alaska have been classified as "wetlands." This has impacted virtually every development on the North Slope, the timber industry, and, individual private land owners wanting to put in a driveway.

The process is slow and has caused undue delays. It has hampered development and makes sound business decisions difficult. Proposals made to the corps often seem to become lost in vast layers of Federal and State bureaucracy. Sometimes applicants never learn where their proposal stands until after they have been rejected or approved. The applicant sometimes has no idea why the proposal was rejected or if modifications can be made to resolve the problems.

The wetland permit issue is an issue that is most critical to Alaska. The Corps of Engineers is one of the most active Federal agencies in the State. It is good that we have the opportunity to hear from them, as well as the other witnesses that have been outlined by the chairman, Senator Abdnor. I think this broad overview of the Corps of Engineers activities in Alaska will help us both come to a better understanding about the concerns of Alaskans and the valuable assistance that the corps provides to aid development in our State.

Senator ABDNOR. Thank you. We will start off with our first witness, who is Mayor Overstreet.

Mr. LAIRD. He is not here, but I can represent him.

Senator ABDNOR. Fine. Are you Mr. Laird?

Mr. LAIRD. Yes.

Senator ABDNOR. Fine. I don't know if you have a prepared statement or not, but if you do, I assure you that the entire statement will go on the record. You may go right ahead if you care to, though.

STATEMENT OF CARL LAIRD, CITY MANAGER, CITY OF JUNEAU

Mr. LAIRD. It probably won't deserve any record in posterity, but Lincoln and such people are little known and long remembered for what they say.

Juneau has some interest in this subject of water resources and particularly because water is a basic part of our transportation in this area and also part of our developable land is within certain areas of what we would refer to as tidelands and the capability of some of our development lies within the scope of what the Corps of Engineers have given studies to in the past.

I have had a chance just this morning to look over a report prepared by the Corps of Engineers and sent to us by Senator Murkowski on the dredging of the channel approximately from the bridge around the Douglas Island in a westerly direction; and some of the economics from this report—approximately—I believe it is around 10 years of age, the report—do not look too favorably from a cost/benefit relationship and I am certainly not in a position to challenge their approach to these cost relationships, but there are some areas that we are particularly interested in and might ask their help to again review this, one being the development of the tidelands area from the bridge easterly to the subport, in which we now have an engineering firm engaged to do the preliminary design for the filling of that area, and creating approximately 22 acres of new waterfront site for Juneau and the downtown area of Juneau where there could be the office and housing expansion that are both very badly needed in the downtown area.

The fill material could possibly come from the dredging of the channel westerly of the bridge. The engineering of that would have to be worked out and it might be by a barge transfer or it might be by a conventional piping with booster pumps and so on.

That, in itself, represents a very sizable water resource from the depths or the bottom of that channel.

Another area that we are possibly interested in: We see the Lemon Creek area in which, through nature and through the help, I think, possibly of mankind in that area, that a great amount of silting and the shoaling of that area is occurring and it appears that in the not-too-distant future and may almost be able to walk acress the channel because it is filling in.

There is, however, a resource there as one of the possible sites for a new public works development in which we need a minimum of 10 acres in the area of Lemon Creek or Salmon Creek, on a tract of land partially on which, to orient yourselves the KJNO station is part of that. That has developable possibilities of possibly creating as much as 40 or 50 acres of land again which could be made up from the channel residues and deposits and we visualize this as being a catalytic support by the municipality toward an industrial site possibly in the barge/rail type of operation.

We are looking at this, we are looking at areas to the east of Franklin Street, and also at the Outer Point, where industrial tracts could be developed to improve the economy of this area and to reduce the construction costs.

All of our material is imported and most of it has to be handled several times as compared to the normal shipping process in the Lower 48 States where most items are normally shipped out of factories in the form of railcars, either box of tank cars. Much of the material coming to this area has to be handled two or three times and transshipped in order to become available to us and these are increasing the costs.

We are planning very shortly to do some feasibility studies into the rail/barge concept. For instance, asphalt is shipped into this area and we have a great need for road construction. Asphalt is shipped into this area not by tank car, but by tank, specially constructed tanks that are 7 by 7 by 7 cubes and you can imagine the cost of handling asphalt in that manner. Propane, lumber, groceries—if a rail site, rail/barge site, becomes feasible, then you have the other ancillary types of construction and that is sizeable quantities of land for warehouse construction and storage of these materials and so on. You would develop a new type of industry in the area as a result of this.

So we visualize the dredging from that channel area as assisting in that type of a development. At some point we feel there is going to be further need for improvement around the airport and extension of the airport runway. There is also some filling problems that are necessary around the airport to fill in areas that would improve the safety of the airport.

We then have the possibility, which I think would be a great boon to the valley residents as well as to Douglas, and that is the possibility of a road connection across the channel from the airport over to Douglas Island.

These are potential developments that would improve the economy and the job prospects of this area from one of just relying upon Government to one of enhancing the private sector a great deal. We feel that the channel and the dredging of the channel and possibly the economics that were studied under the first go-around of the Corps of Engineers, that possibly these new areas of development would shed a difference in the cost benefit in the economics of dredging and maintaining the channel.

I believe that covers it. Is there anything else, George, that I forgot to mention? I think that is the end of my statement at this time.

Senator ABDNOR. Is the corps authorized to maintain the channel?

Mr. LAIRD. I'm not aware——

Colonel NUNN. No, sir; there is no authorized project there now.

Mr. LAIRD. I might add one other thing, that naturally we expect there to be concern as to environmental impacts that would come from this. However, the interruptions would be temporary and I think we have many, many cases, evidence throughout this country and throughout the world, where nature has, in a very short time, has restored itelf and it is not one of total destruction. I have the unshakable faith that mankind, working with nature, tends to improve things a great deal. Nature, left by itself, as I said earlier in my statement, will fill in that channel and you will be able to walk across it in a short period of time.

I think we will enhance it and improve upon nature and environmentally we would not greatly affect and ultimately would greatly improve the aquatic life as well as operations for mankind.

Senator ABDNOR. You are proposing dredging of this channel to over the 14-foot level; is that right?

Mr. LAIRD. I'm not sure whether that would become that level or not. The amount of materials that would be—we have not calculated the amount of materials that would come with the developments that I have proposed. I see it at least being capable of developing the depths for the smaller craft, for the fishing fleets and for the pleasure crafts. I doubt that it would go beyond that, but at least we would enhance the recreational and fishing fleet operations in this area.

Senator **Abdnor**. The administration does have a bill in Congress and we are obviously going to have some action on it. It is the one piece of water legislation we will probalby be bringing out in the near future, but today as it is written, it proposes a full cost recovery on navigational dredging over 14 feet.

Mr. **Laird**. It would certainly be very favorably received by this area.

Senator **Abdnor**. That would be interesting, because it is very obvious that in the next few years we are going to have to revise our spending on water projects because we don't see any huge sums of money being appropriated. I think we have got $1½ billion this year for all the projects around the country and we think we ought to get moving. We haven't done much in water over the last few years. I think you are going to see a lot of new innovative ways of financing different water projects, and of course, that is part of what we are going to be doing in our committee.

Thank you very much.

Mr. **Laird**. Thank you.

Senator **Abdnor**. Mr. Robert Cross. Mr. Cross, we welcome you to the committee. Do you have a statement?

Mr. **Cross**. Senator, I have submitted my statement for the record.

Senator **Abdnor**. I'll assure you that the entire statement will be placed in the record and you can summarize or do whatever you want to here.

STATEMENT OF ROBERT CROSS, ADMINISTRATOR, DEPARTMENT OF ENERGY, ALASKA POWER ADMINISTRATION

Mr. **Cross**. Thank you very much, and it is certainly good to see you here in Juneau.

I am Bob Cross, Administrator of the Alaska Power Administration, which is part of the U.S. Department of Energy. Part of our office's responsibility is operation and maintenance and marketing for the Snettisham hydroelectric project some 28 miles south of Juneau, which is the main power source for the city and borough of Juneau at this time.

We feel that this project, which was constructed by the Corps of Engineers, is one of their very important accomplishments of their civil works programs in Alaska, and my notes are primarily on the operating experiences.

This project was planned, authorized, and designed as a staged project to meet long-term power requirements in this area. The present project, consisting of the Long Lake stage, has been operational since 1973. It has a firm energy capability—the amount that can be produced in a critical water year—is estimated at 168 million kilowatt-hours. During 1981 we will use about 70 percent of this present capability.

The original project plan assumed future stages at the Crater Lake unit, and at a larger dam at Long Lake. These future stages will approximately double the project firm energy capability. Now, on the administration side, there have not been final decisions on actual funding of these future stages since the 1983 budget has not yet been put together.

Our operating experience has generally been very favorable. In the early years we had some serious problems with the transmision line. They included some icing problems and a couple of towers that fell down, an avalanche problem. We think that the major problems have been taken care of by corrective measures either done or underway. We are pleased to report that over the last 5 years we have got about a 99.5-percent operational capability. That is, Snettisham power is physically available to town 99.5 percent of the time.

One of the rather unusual aspects of the project design is that it is set up for supervisory control by remote control from the Juneau end. It is a remote site, remote fjord south of town. At our Juneau substation some 4 miles south of here we have one set of operators controlling the Snettisham projects plus several small utility-owned powerplants all in one place. This has proven to be a very efficient and cost-effective method for system dispatch and operations here in Juneau.

We have a small maintenance staff assigned at the remote project site, and they are capable of operating the project in the event that we have problems with the supervisory control.

I'm very pleased to note that postconstruction reviews by the Fish and Wildlife Service have not found any major impacts on fish and wildlife. We feel we have a very sound project from an environmental viewpoint and perhaps the largest unanticipated project result has been that it has proven to be an excellent site for siting a fish hatchery which the State has accomplished, the initial phase of the fish hatchery at the Snettisham project was completed late last year.

We prepared a review of power production and use from Snettisham as it was expected at the time of authorization in 1962. That comparison with that early forecast was what actually turned out to be. We found that the original estimates made 20 years ago were a little on the high side. The 1980 figures for actual power demand and energy used were 83 percent and 81 percent, respectively, in the 1961 forecast. Our actual demands actually are running about 2 years behind the original forecast.

I guess that is pretty fair accuracy for estimating demand over a 20-year period of time.

There were other things that were not anticipated at the time of the project authorization. The biggest, of course, was the huge increase in energy values over the last 7 or 8 years. One result of the increased value of energy has been that several small hydroelectric projects owned by Alaska Electric Light & Power Co. now have a much extended operating life. These are older plants, have been in operation since about 1915. At the time of the Snettisham authorization, it was expected that they would be retired because of high operating costs. Changing economics of energy plus some modernization, automation of some of these older plants now will enable utilities to keep them in operation for a much longer period of time. That amounts to a little less demand on our Federal hydroelectric project, but it does provide a very important reserve for energy supplies here in Juneau.

We also see important changes in the patterns of energy use, partly because of the high oil prices, partly because the renewable sources are available. We are beginning to see a substantial amount of electricity used for electric heating here in Juneau. We think we are seeing significant increases in efficiency of use and there is also a significant oil savings as a result of the Snettisham project.

Because of the changes, the project will meet area demands for a longer period than was originally expected. The value of power to consumers is going to turn out to be much higher than we expected at the time of authorization.

Mr. Chairman, I've appended three tables with a few statistics. One was this comparison of the forecast of power demands at the time of authorization with what actually turned out to be. You will note in that 20 or so years' time, the power use in the Juneau area increased by a factor of about 4.6 to 4.8, so there has been a rather substantial increase in energy use in the area.

The second table sorts out the sources of power for this Juneau area and the pleasant part, in the last couple of years, particularly, we are finding a little over 99 percent of our total electric power supply is from hydro resources now. You will note that in 1981 the Snettisham was providing about 70 percent of the area's power supply, and then the final table is a summary of the year-by-year set of sales from the Snettisham Project and the revenues that are collected from the sales and returned to the U.S. Treasury.

Mr. Chairman, that completes my statement. I'd be more than happy to answer any questions that you would have.

Senator **Abdnor**. Are you suggesting that this hydroelectric powerplant be expanded?

Mr. **Cross**. Mr. Chairman, this plant was designed as a staged project, with three stages. It looks to us like the second stage is needed in about 1986 or 1987. We have so advised the Corps of Engineers of that. That is based on our technical studies.

Senator **Abdnor**. The project has all the authority it needs for additional expansion?

Mr. **Cross**. That would be within the original power authorization, yes, from the Flood Control Act of 1962.

Senator **Abdnor**. Has there been any studies on the second stage of this project?

Mr. **Cross**. Yes, sir. Much of the design work has already been completed by the Corps of Engineers and then of course our office does periodic reviews of demands and supplies to try to get a fix on schedules for these units.

Senator **Abdnor**. I would assume the cost/benefit ratio stays high?

Mr. **Cross**. It remains very high because the alternative for this area is oil-fired generation, and the benefit/cost ratio appears to be very, very good.

Senator **Abdnor**. How much of an increase would the second stage bring in additional power?

Mr. **Cross**. The second stage will consist of building a tunnel to tap a second lake, actually, and it will increase the energy capability of the project by roughly 60 percent. It will add one additional generating unit which will be a little more than a 50-percent increase in the number of kilowatt capability of the project, so either way you look at it, you have a 50- or 60-percent increase in project capability.

Senator ABDNOR. Have they even put a cost on it at all?

Mr. CROSS. Yes, sir, and maybe you could ask Colonel Nunn about this, but I understand the most recent estimate is approximately $50 million, based on October 1981 prices.

Senator ABDNOR. How long would it take to actually build the addition?

Mr. CROSS. I have seen some preliminary schedules by the Corps of Engineers. It is a 4- to 5-year construction period.

Senator ABDNOR. You are using 80 percent now. What happens to that other 20 percent?

Mr. CROSS. At the moment it is spill, wasted over the dam.

Senator ABDNOR. Is that because of no transmission lines?

Mr. CROSS. That's correct.

Senator ABDNOR. So you have to find the places to put them. How much additional power would that be, another 60 percent?

Mr. CROSS. Another 60 percent, so that would handle area requirements for another several years.

Senator ABDNOR. That would, I suppose, help stimulate the growth of your area here, an abundance of power?

Mr. CROSS. I believe it will certainly help. Just the extra renewable energy is certainly a very valuable thing to the economy, yes.

Senator ABDNOR. You were talking about those older projects. Will they eventually be phased out?

Mr. CROSS. I expect that their useful life now may turn out to be several decades more and our projections of timing additional units at Snettisham are assuming that those will continue now for several years.

Senator ABDNOR. Are those privately owned?

Mr. CROSS. They are privately owned. In fact, they were originally built by the gold mining companies, and when gold mining stopped after a number of years they were sold lock, stock, and barrel to local electric utilities who now maintain and operate them. The utility companies have accomplished a lot in the way of modernization and automation of those plants to improve their economics of operation and they are providing what still is a very important share of the energy source for this community.

Senator ABDNOR. It is certainly blessed with great potential. Do you think you can justify this project—and I know you can in cost/benefit, but do you have the use or need for it?

Mr. CROSS. Yes, sir, we think we do, and we have made forecasts, and also there have been several other forecasts by others made, and our indications at this point are that the power is needed. We need the additional power in roughly the 1986 or 1987 time frame.

Senator ABDNOR. Is that because of the growth in the city?

Mr. CROSS. It is because of the growth and shifting of pattern of use. You see, the alternative energy for almost any use here is oil and due to the rapid increase in oil prices, it is making the electricity a very practical alternative energy source for some other things.

Senator ABDNOR. This is a beautiful area. I can't imagine why it wouldn't have all kinds of growth. I'm sure you put the weather on its best behavior today. You have a very, very beautiful city. I'm sure the growth of it is bound to come. Thank you very much.

Mr. **Cross**. Thank you, sir.

Senator **Abdnor**. Eric Yould? Mr. Yould, you are with the Alaska Power Authority; it that correct?

Mr. **Yould**. Yes, Mr. Chairman.

Senator **Abdnor**. That is State?

Mr. **Yould**. Yes, sir, Mr. Chairman. I have submitted testimony for the record.

Senator **Abdnor**. We will place the whole statement in the record. You just go ahead in any way you care to.

STATEMENT OF ERIC P. YOULD, EXECUTIVE DIRECTOR, ALASKA POWER AUTHORITY

Mr. **Yould**. Mr. Chairman, the Alaska Power Authority, as you mentioned, is a State organization. In fact, it is a corporation of the State of Alaska and, perhaps unfortunately, has the same acronym as its Federal sister, the Alaska Power Administration, and, in fact, has many of the same functions; although a few more, as yet.

The testimony that I am going to be providing today will primarily deal with hydropower development in the State of Alaska. I will try and provide some constructive criticism, and I hope that it will be taken as such. We think very highly of the corps' technical capabilities; however, are somewhat less than enamored with the process by which they bring projects forward.

To give you a feel for my background, I used to work for the Corps of Engineers prior to taking this position. I worked for them for 3½ years and ultimately was Chief of the Hydrologic Engineering Section in which I contributed to may of the corps' studies in hydropower.

Three and a half years ago I was appointed executive director of the Alaska Power Authority and, in fact, your distinguished colleague Senator Murkowski, was on that first board of directors that appointed me.

The State's program, to give you a feel for the magnitude, is quite large. The power authority has the authority to develop any economically feasible technology to provide lower cost of power to the State of Alaska, that is, with the exception of nuclear. Administratively, and because of other energy alternatives, the State has chosen not to allow us to get into nuclear.

At any rate, we have generally found that throughout the State hydropower provides the greatest opportunity to get off of oil, natural gas and coal, which presently provides roughly 90 percent of the electrical energy consumed within the State, domestically.

Senator **Abdnor**. Is the big end of that oil?

Mr. **Yould**. As a matter of fact, the big end of that is natural gas, which is burned in the Anchorage area. For rural Alaska it is oil. In the Fairbanks area, we do burn some coal.

Mr. Chairman, to give you a feel for the magnitude of the program the Alaska Power Authority is bringing forward this year, the legislature appropriated in excess of $500 million to initiate, design, and construct a number of hydropower projects throughout the State, as well as some other renewable resource projects.

The legislature also made a policy commitment of another $4½ billion to be expended over the next 4 to 5 years for other projects that are on the planning horizon.

This is just to give you a feel for our interest, obviously, in the corps program.

My testimony today will deal primarily with the planning and development of projects with the Corps of Engineers and, finally, the interface that we have with the Corps of Engineers on two ongoing projects, the Snettisham project which Mr. Cross mentioned and the Bradley Lake hydropower project which I don't believe has been mentioned as yet, but which would provide power to Homer.

Insofar as the planning process is concerned, it is quite cumbersome. As I'm sure you are aware, it starts out with an authorization for a study which then requires an appropriation from Congress to initiate. Once the appropriation is made, not necessarily at the same time the authorization is forthcoming, the district engineer, by chain of command, is given direction to initiate the study. This entails a stage 1 study, which leads to a stage 2 study, which leads to a stage 3 study with many convolutions in between.

Assuming that the Corps of Engineers finds a viable alternative that is environmentally sound, economically feasible, the district engineer will transmit his report to the division engineer, who transmits his report, after review and comment, to the Board of Engineers for Rivers and Harbors, who, after having done the same type of analysis and review and so forth, transmits his report to the Chief of Engineers who, given the same process, transmits it to the Secretary of the Army who then receives, within a 90-day period of time, input from the Water Resource Council, Office of Management and Budget, and then, finally, if there happens to be an omnibus bill coming up that year which comes out of your subcommittee, the project might make it to Congress.

The omnibus bill, obviously, comes up every other year, although there has not been a major omnibus bill since 1976.

If the project then becomes authorized, it must then, obviously, await funding before the project can even start. The funding comes only at the request of the Office of Management and Budget, or through other means. In the event that the funds are forthcoming or the funding is authorized by the Congress and the President signs the bill, the district engineer then engineers and designs or conducts engineering and design studies, conducts phase 1 general design memorandum, phase 2 general design memorandum, feature design memorandum, plans and specifications and then finally is in a position to initiate construction of the project.

I only bring those steps up to you to indicate that it is a very long, cumbersome process.

Senator **Abdnor**. I don't mean to interrupt you here, but we hear this many times and the word "fast-track" has come up many times in our committee hearings. It has been brought to our attention by many witnesses that it is an average of 26 years from the time you start planning something until the time you go to construction; and sometimes the whole picture changes by the time that happens. So we know what are talking about.

Mr. YOULD. For the benefit of the audience, having worked for the Corps of Engineers and knowing where some of the skeletons are, the Corps of Engineers initiated a study in 1974 of hydropower development in southeastern Alaska. They initiated their studies in the community of Ketchikan. The study has not, as yet, been completed; has not even gone to the Division Engineer, and this is 7 years later. During the same period of time, in 1976, the local community got tired of waiting around, through the Alaska Power Authority received funding to initiate its own study, and in 2 years conducted the same phase of work that the Corps of Engineers is in right now, submitted it to the Federal Energy Regulatory Commission, who took 1½ years to license the project, but in fact did; and this year we have initiated a construction start on this hundred million dollar project known as Swan Kale, one of the projects that the Corps of Engineers originally looked at.

I'd be willing to bet that we are going to have power on line on that from that project before the corps gets their study to your committee.

Senator ABDNOR. You will be doing the developing?

Mr. YOULD. Yes, Mr. Chairman.

Senator ABDNOR. Otherwise I was going to ask you how much faster could the State build the project.

Mr. YOULD. Basically, realizing that we started our first study in 1976 and will have the project on line in 1983, what we are talking about is 5, 6 years? The Corps of Engineers will not have even completed their feasibility study within a 9-year period of time.

Senator ABDNOR. Let me say in defense of the corps: I think Congress some times——

Mr. YOULD. I couldn't agree more. That is part of the process. We think very highly of the corps, but we do mean these to be critical comments. I would like to see the process streamlined, obviously.

Mr. Chairman, the State of Alaska does have a very large program. The State of Alaska, however, has been waiting for another project that the Federal Government has an interest in to be initiated as soon as possible. That project is the Bradley Lake hydropower project, which, in today's dollars, is, I believe, a $215 million project which would provide 135 megawatts of power to primarily the Kenai Peninsula area.

The project was authorized for construction in 1961, but for a number of reasons which corps is not responsible for, but primarily economic reasons, the project was heldup. At any rate, the State of Alaska is in a position where they can expedite the development of this project and despite the fact there is a Federal interest, the State has an equal interest in getting it going as soon as possible.

The legislature this year appropriated $15 million to the power authority to initiate the first phases of this project, using the Corps of Engineers as our construction agent. We have no interest at this time in going any other direction but using the Corps of Engineers. Our problem is that we need authorization from Congress to allow the Corps of Engineers to accept our funds and when the project is completed, to turn it over to the power authority and the State of Alaska as a State-owned and paid for project.

The last legislature unanimously passed a resolution known as Senate Joint Resolution No. 37 relating to the construction of the Bradley Lake hydropower project with the following.

> *Be It Resolved,* That the Alaska State Legislature respectively requests that the U.S. Congress provide for a system to permit the U.S. Army Corps of Engineers to design and construct the Bradley Lake hydroelectric project as a project of the Alaska Power Authority provided that the financial responsibility for this project shall solely be the responsibility of the State of Alaska and the Alaska Power Authority.

We are willing to step forward in this period of time of an austere situation within the Federal Government, use some of our renewable resource or oil dollars to develop a renewable resource and basically get on with the program.

Mr. Chairman, the second project that the State has an interest in that the Federal Government does as well is the second phase of the Snettisham hydropower project. Once again, Mr. Chairman, the Alaska State Legislature extablished the State's position on this project through Senate Joint Resolution No. 45, in which the following Be It Resolved clause was passed by the legislature:

> *Be It Resolved,* That the Alaska State Legislature respectfully requests the U.S. Congress to appropriate to the Army Corps of Engineers the money necessary for construction to begin during fiscal year 1982 on the Crater Lake stage of the Snettisham hydroelectric project.

In addition, in recognition of Federal policy to encourage contribution of funds, the legislature appropriated $4½ million to the power authority as our contribution to getting this project rolling as well.

I would imagine that it would be within the interest of the State of Alaska to have this be a project of the State, were it not already a Federal project, and that is the reason we are requesting that you fund this project as judiciously as possible.

Mr. Chairman, my main purpose in being here is to appeal to your committee to work with me to put together the necessary language in your appropriations bill to allow us, number one, to fully fund the Bradley Lake hydropower project, and ultimately own it for the State; and number two, to provide contributed funds for the Snettisham project to be owned by the Corps of Engineers, to get both projects going.

I appreciate the opportunity to come before your subcommittee today. The Alaska Power Authority and the Corps of Engineers have long coordinated their programs and both have the mutual objective of helping to solve Alaska's energy problems. Through oil alone, the State of Alaska provides roughly 15 percent of the Nation's needs. However, given the tremendous additional reserve of oil, gas, coal, geothermal, peat, wind, tidal, and hydropower—and by the way, the State has 47 percent of the undeveloped hydropower of the Nation—the State's potential future contribution to the Nation is obvious. However, in order to be able to provide such resources, Alaska's own infrastructure must first be developed. Realizing Alaska's strategic value, the actions I have suggested by the Federal Government would be prudent investments in our Nation's future.

Mr. Chairman, those are my basic comments. I'd be happy to answer whatever questions you might have.

Senator ABDNOR. Thank you, Mr. Yould. There has been conversation brought up in committee about the possibility of sharing costs—the State, Federal, and even the private sector in some cases—and what it would all entail. We'd have a long ways to go on it. Were you suggesting that the State could take it over?

Mr. Yould. We are envisioning utilizing the Corps of Engineers as our construction entity for design, construction management—obviously they would bid the project to a private sector as they do with all their projects, but basically we would use them as our construction manager for this project, at its completion using our financing for the project so they'd then turn it over to the State.

Senator ABDNOR. Have they done much on the planning stages on the Bradley Lake project?

Mr. YOULD. Yes. It is funded through the phase 1 general design memorandum stage. I believe that Colonel Nunn will tell you more about where they are on this project, but they are in a position to start construction on the project, as I understand, this year.

Senator ABDNOR. Let me ask you: Are you familiar with the Domenici-Moynihan bill?

Mr. YOULD. I'm very familiar with that. Well, I shouldn't say very familiar. I am familiar with that. I can understand some reluctance on the part of some Federal entities on that bill. From my perspective it does provide for much more local jurisdiction in authorizing projects and once authorized, a much more expeditious means for proceeding into construction. From that standpoint, I would have to say that I can see some very positive benefits from that particular bill.

Senator ABDNOR. You are going to take that and really run with it particularly if you are in a State that has the resources to do it, such as Alaska.

Mr. YOULD. I certainly believe that to be the case. I don't necessarily agree with the break-down on a per-State basis that might go to the State of Alaska, but on the other hand, I can perhaps understand the reasoning for it.

Senator ABDNOR. In a State like South Dakota where I come from you might find some difficulties because revenues are hard to come by, but it is a subject that is going to get more and more discussion. We haven't gone too far into it yet.

Mr. YOULD. Mr. Chairman, if I may make a comment about the bill, the Western States are primarily those that, because of the arid nature of the States, have a greater requirement for water resource development, whereas in the Eastern States, where you have a wealth of precipitation and runoff, you don't have the critical Federal need for development that you have in the West. However, the bill that you are discussing appropriates funds equally throughout the States, and I don't think that is perhaps the best policy for the Federal Government.

Senator ABDNOR. Well, that is one problem. You are not looking at it from a national policy when you do it this way. Let me assure you, that the Eastern States are coming up with ways to spend the money and New York has an aqueduct that they'd like to re-do and put a new one in. We have had a great deal of testimony on that. I went so far as to say that maybe we ought to put all the water moneys together. The big end is going into waste water and projects like that. Maybe that is the kind of thing that ought to be allocated altogether and then maybe you'd even it up pretty well. It has a long way to go yet. I know that both Senators Domenici and Moynihan are very serious about it and certainly will have a fair share of a hearing. That is why I was happy to get your comments to see what you have to say about it.

Let me ask you the real tough one now. We are talking about big delays on the part of the corps. What would you do, specifically, to speed this thing up?

Mr. YOULD. Well, that is a tough question, but basically I would handle hydropower development in the State of Alaska similar to what the Federal Government has done on small boat harbors Nation-wide. And that is to give small continuing authority to the Corps of Engineers without having to go through the long authorization process.

As I understand, in the State of Alaska, the corps—and throughout the Nation—the corps has internal authority to authorize projects up to a certain size for construction without sending them all the way to Congress, which, by the way, the bill that you previously mentioned would do in certain instances as well.

So I would suggest that for perhaps projects of 25 megawatts or less, that authorization be levied with the local district and perhaps some sort of Federal or State oversight entity.

This business of sending projects all the way up through the Office of Management and Budget and the Board of Rivers and Harbors and Water Resource Council is very convoluted, very time-consuming and does not serve the interest of the local communities.

Senator ABDNOR. Well, thank you. We appreciate your being a witness today.

Mr. YOULD. Thank you, Mr. Chairman.

Senator ABDNOR. Our next witness is Ed Hanzuk, manager of TOTE, Inc. Do you have some other gentlemen that will be coming up with you here?

Mr. HANZUK. Mr. Chairman, I have with me today Captain Foster, one of the pilots that Totem Ocean Trailer Express employs and also I have with me Captain Walt Shubert who is representing the Southwest Alaska Pilots Association as a signatory in a letter to Senator Murkowski.

Senator ABDNOR. Very fine. Would those gentlemen like to come up? Messrs. Foster and Shubert, we welcome you to the committee. We will let you take off in any way you want to. Do you want to start it off?

Mr. HANZUK. Yes, sir. I'll just read the statement that I have already presented to you.

Senator ABDNOR. OK.

STATEMENT OF ED HANZUK, VESSEL MANAGER, TOTEM OCEAN TRAILER EXPRESS, ACCOMPANIED BY DON FOSTER, PILOT, TOTE, INC. AND WALT SHUBERT, SOUTHWEST ALASKA PILOTS ASSOCIATION

Mr. HANZUK. Mr. Chairman, members of the committee, my name is Ed Hanzuk. I am the Alaska vessel manager for Totem Ocean Trailer Express, Inc., commonly known as TOTE. As Alaska vessel manager for TOTE, I am responsible for the safe and expeditious operation of the TOTE vessels in Alaska waters.

TOTE operates a regularly scheduled roll on-roll off trailer-ship service between Puget Sound and Anchorage, Alaska with two recently constructed deep-draft vessels. The TOTE vessels are valued at approximately $50 millon each. Each of these vessels is approximately 800 feet in length and is registered with the Coast Guard at approximately 17,000 gross tons. When loaded, each of these vessels draws 30 feet of water.

Rapid shoaling of the Cook Inlet channel at West Point (Fire Island) presents a serious danger to the TOTE vessels, their officers and crew. This danger is of two kinds: First, the shoal has shifted dramatically during the past year and is now encroaching upon the channel into Anchorage. TOTE fathometer readings have indicated, and NOAA has confirmed, that at many tides inadequate water depths exist along the Point MacKenzie Range—the principal line of approach relied upon by vessel pilots and masters at this point in their approach to Anchorage. Thus, the existing channel is simply no longer safe for deep-draft vessels under the normal range of tidal conditions. The existing channel has become too shallow.

Second, the danger to our vessels and crews is compounded by the fact that no one really knows exactly where this shoal lies. A recent NOAA mini-survey indicated that the shoal has shifted over 100 meters east in the past year. Our masters and pilots indicate significant change in the shoal since a series of earthquakes last spring. The rapid shoaling of the channel along the course normally traveled by our vessels has been documented but the dimensions of the shoal and the possible existence of a safe alternative channel have not yet been investigated. Thus, our masters and pilots know that the current channel is no longer safe but don't know where to go to find safety.

Anchorage is the largest port in the State of Alaska and the largest city in Alaska. Service to Anchorage by deep-draft vessels is already hampered by the existence of the Knik Arm Shoal. The development of this new shoal at West Point seriously compounds the complexity of the approach to Anchorage by deep-draft vessels. Where TOTE has been able to "schedule around" the Knik Arm Shoal, the addition of a second shoal to the channel will make this much more difficult and in many foreseeable circumstance will prevent TOTE from maintaining its scheduled service to Anchorage. At the very least, the scheduling difficulties and delays inevitably associated with waiting for sufficient water to cross, not one, but two dangerous shoals in the Cook Inlet channel promise to seriously increase TOTE's operating costs.

As an example of what could happen, please consider the following. In February, 1977, the TOTE vessel Great Land diverted to the aid of a vessel in distress in the Gulf of Alaska. The result was a delay in the Great Land's arrival in Anchorage by some 15 hours. As a result of the late arrival, stevedore operations were conducted at night at double and triple overtime rates for several voyages in both Anchorage and Tacoma. Despite every effort, the Great Land was unable to regain the lost time and was therefore required to drop one round-trip voyage in order to regain its former schedule.

TOTE estimates total additional costs associated with this episode at more than $500,000.

As can be seen from this example, delays of a few hours can lead to enormous costs. Ultimately, these costs are borne by TOTE's Alaska customers.

The NOAA ship *Rainier* is presently operating in Cook Inlet on a less urgent assignment and could be reassigned immediately to conduct a survey of the channel approaching Anchorage. In TOTE's view, this is the very least that should be done this summer. If the survey is completed this year, we would be in a position to know whether dredging will be required and, if necessary, work toward beginning that project next year.

In summary, let me emphasize the following: The West Point Shoal is a present danger to all deep-draft vessels operating in the Cook Inlet Channel and to their officers and crew. The danger exists because the shoal is encroaching upon the existing channel and because an adequate survey has not been conducted to identify the shoal's exact location. In TOTE's view, it is imperative that a complete survey of the West Point Shoal be conducted immediately to determine whether a safe alternative channel exists. If a safe alternative channel does not exist, then immediate action is necessary to remove the shoal if the Port of Anchorage is to remain reasonably accessible to deep-draft vessels.

Along with my statement, Mr. Chairman, I have submitted a copy of a letter to the port director, Port of Anchorage, from Captain Mobley, NOAA vessel commander, supporting our concern for the West Point Shoal. I also have a copy of a joint letter to Senator Murkowski. The signatories include Sea-Land Service, Inc., port director for the Port of Anchorage, Southwest Alaska Pilots Association, and Alaska maritime agencies; and finally, there are extracts of our recording fathometer readings to illustrate the condition or the height of the West Point Shoal as it relates to the Knik Arm Shoal and shows where our concern is.

[The attachments referred to by Mr. Hanzuk follow:]

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

NOAA Ship RAINIER S221
1801 Fairview Avenue, East
Seattle, WA 98102

PORT OF [illegible]
Attention Info Action
1
2
3
4

June 9, 1981

William D. McKinney
Port Director
2000 Anchorage Port Road
Anchorage, Alaska 99501

On May 27, 1981, the RAINIER completed a two-day hydrographic survey of the shoal centered 2.65 miles at 294°T from the Fire Island Light (LLN 3509) near Anchorage, Alaska. The project was a followup of our survey on 5 August 1980, to monitor any further drift of this shoal.

This survey showed that the shoal has shifted over 100 meters east toward the Point MacKenzie Range line since our survey last August. The base of the shoal has reached the range line with a depth below mean lower low water of 36 feet at 61° 08.7' North, 150° 20.7' West. This information was submitted to the Commander, Seventeenth Coast Guard District for publication in a local notice to mariners.

The enclosed copies of the plotting sheet represent the preliminary results of this survey. They are forwarded with the understanding that this is field information which is subject to office review and verification. All soundings are plotted in feet at MLLW and have been corrected using predicted tides for Fire Island. The scale of the original plotting sheet is 1: 20,000 but the scale is slightly distorted on the copies.

The approximate reported positions of the SS PHILADELPHIA and the SS WESTWARD VENTURE are shown on one copy of the sounding plot (Reference: Letter to Port Director from Captain James C. Waters, dated 20 May 1981). It should be noted that although the shoal depths indicated by these vessels are not seen in their reported positions, the area directly north and northeast of these positions is significantly shoaler.

The RAINIER also surveyed the vicinity of Knik Arm Shoal this May in response to your inquiry and to shoal depths reported by the SS WESTWARD VENTURE. The exact position of the WESTWARD VENTURE at the time of her shoal depth recording is not known, but our survey did not reveal any depths in this area shoaler than those charted. It should be noted that charted depths as shoal as 25 feet exist along the Fire Island Range in this area and that a vessel drawing about 30 feet transiting at a 13-foot tide should expect to clear the bottom by only 8 feet.

Because of rapid movement of the Fire Island Shoal onto the Point MacKenzie Range, we have recommended that a reconnaissance survey of the approach to the Port of Anchorage be performed as soon as possible (hopefully this summer) to delineate a route into Anchorage which will avoid this and any similar shoal areas. We will keep you informed of any further developments.

Sincerely,

Wayne L. Mobley

Wayne L. Mobley
Captain, NOAA
Commanding Officer

Enclosures

cc: CPM, C3, CPMx4

July 10, 1981

The Honorable Frank Murkowski
Room 2104/Dirksen Bldg.
Washington, D.C. 20510

Re: Hazard to Navigation at Port of Anchorage

Dear Senator Murkowski:

The purpose of this letter is to alert you to a serious navigational hazard that has developed in the Cook Inlet channel approach to the Port of Anchorage and to seek your help in dealing with it.

As you may know, the Knik Arm Shoal has consistently been recognized as a navigational hazard and has restricted the scheduling of arrivals and departures at Anchorage to insure minimum water levels for deep draft vessels. The Knik Arm Shoal level has appeared to remain fairly constant.

Recently, however, the approach channel in the vicinity of West Point has shown marked evidence of shoaling and has become a matter of great concern to vessel operators, masters and pilots. The present location of this rapidly developing shoal is not shown on current navigational charts, nor has warning been given in a U.S. Coast Guard local notice to mariners. Recent fathometer readings indicate the presence of shoaling pinnacles in the upper Cook Inlet channel at West Point more shallow than that of the Knik Arm Shoal. This situation creates serious danger to deep draft vessels serving the Port of Anchorage. If this shoal is not promptly removed or an alternate channel identified, the accessibility of the Port of Anchorage to deep draft vessels may be seriously impacted.

The Port of Anchorage, Totem Ocean Trailer Express, Inc., Sea-Land Service, Inc., Southwest Alaska Pilots Association and Alaska Marine Agencies (operators of petroleum vessels) have contacted responsible officials of the U.S. Coast Guard, the U.S. Army Corps of Engineers and the National Oceanographic and Atmospheric Administration (NOAA) on numerous occasions in the last two months concerning this problem without result. An initial "reconnaissance survey" conducted by the NOAA ship RAINIER has confirmed the changes in the channel and has underscored the need for prompt action. At a meeting held on July 7, 1981, in Anchorage, officials of the U.S. Army Corps of Engineers, the Coast Guard and NOAA acknowledged the existence of the shoal hazard and suggested a temporary revision of relevant navigational guides, pending a more complete survey of the channel which would determine whether removal of the shoal would be necessary to maintain the safety of the channel. However, all of the agencies indicated that they would be unable to take any action to complete the channel survey or, if necessary, to remove the shoal this year.

Thus, although all governmental authorities have acknowledged the existence of this navigational hazard, no one is willing to take even the first step to immediately conduct a complete survey of the channel in the vicinity of West Point to provide accurate navigational information to vessel operators, masters and pilots. We are informed that the NOAA ship RAINIER is currently conducting a much less urgent survey of Kachemak Bay (also in Cook Inlet) and could easily be dispatched to complete the required survey this summer. However, apparently because of bureaucratic inertia at NOAA, NOAA has refused to respond to this emergency situation.

Consequently, we ask your help in redirecting the priorities of NOAA to conduct the necessary survey of the channel into Anchorage, and, if shown to be necessary by the survey, in obtaining immediate action by the Corps of Engineers to remove the shoal.

Thank you very much for your assistance.

Sincerely,

MUNICIPALITY OF ANCHORAGE

By William D McKinney
William D. McKinney,
Port Director

TOTEM OCEAN TRAILER EXPRESS, INC.

By Robert B McMillen
Robert B. McMillen,
President

SEA-LAND SERVICE, INC.

By H. L. Schuyler

ALASKA Maritime AGENCIES By: Barrington

SOUTHWEST ALASKA PILOTS ASSOC.

By

cc: The Hon. Don Young
The Hon. Ted Stevens
The Hon. Slade Gorton

Senator **Abdnor**. Thank you. Do you other gentlemen care to add anything?

STATEMENT OF DON FOSTER

Mr. **Foster**. Yes. As a pilot, Mr. Chairman, it is a great concern. You have a copy of the minisurvey, the soundings from NOAA. Well, they do not coincide with the chartlet that came out in a Notice to Mariners to be added to the chart, so we have all—all the pilots going in there—I think including the Southwest Pilots—have been trying to find out where the deepest water is, going different places, and so far we haven't found it.

But it is shoaling quite rapidly in a southeasterly arc from buoy No. 5 to West Point. It is only a matter of time until we are going to have to wait until there is more water, and that is very critical on the TOTE ships because they can only dock on the flood tide. That shoal is about 13 miles from the dock and if we have to wait until there is more water, we will have to lose about 12 hours to wait until the next flood tide to dock, and that is quite a concern.

Senator **Abdnor**. Well, thank you. Mr. Shubert?

STATEMENT OF WALT SHUBERT

Mr. **Shubert**. Yes, thank you. This shoal—we have only got about three-tenths of a mile to play with on either side of our deep water, which isn't much. We have got a very strong current sitting across there, as you go in, and you have to get the ship lined up properly to get it across that shoal.

Now, what would be handy would be to have a range set up on Fire Island, at least temporarily. As that shoal is growing all the time, according to NOAA, sometime there is going to have to be a different channel found, perhaps on the other side of the shoal, but if that is done, there will have to be some sort of permanent marker that we can take radar bearings on going through fog and limited visibility because you can't dead reckon your way through there because of the velocity of the tides in that area. You have got to be able to ascertain your position in any given moment.

Senator **Abdnor**. How long has that been going on?

Mr. **Hanzuk**. Are you referring to the current or——

Senator **Abdnor**. The shoal.

Mr. **Hanzuk**. The West Point Shoal has gradually, over the last few years become a point of concern in that it is not only growing in its elevation, but also is changing its position, apparently going or moving in a southeasterly manner and it has grown in height, at points, equal to that of the Knik Arm Shoal, which is a few miles distant.

Senator **Abdnor**. Has that been there for years?

Mr. **Hanzuk**. The Knik Arm Shoal has apparently been there for quite some time and has been a shoal that the pilots and masters have had to deal with on a continuing basis, but the problems with this West Point Shoal are something that is farily recent and need to be——

Senator **Abdnor**. Does anyone know what brings this on?

Mr. **Hanzuk**. Captains Foster or Shubert would probably be better able to answer that.

Senator Abdnor. Is this being monitored by the Coast Guard or the corps? Who does that? Who has that responsibility?

Mr. Hanzuk. NOAA has. Through the use of their survey vessel *Rainier*—they were in the Anchorage Harbor very briefly this summer and at the request of the port director, made a quick survey, minisurvey.

Senator Abdnor. Is that the first thing that has really been done on it?

Mr. Hanzuk. Well, no; the entire Cook Inlet, from what I can understand, has been reviewed and segmented surveys have been accomplished throughout the years so that there has never been a thorough survey in any one year of any major part of the Upper Cook Inlet at least as could be ascertained up to 2 weeks ago.

Senator Abdnor. Well, who do you think should take the leadership in that, the corps?

Mr. Hanzuk. Well, first of all, the NOAA people, to get a proper survey so that we know what is in the inlet, where it is safe to navigate the vessels through and if there is a natural channel, then that is the most simple solution to the problem. The question is we don't know where that channel is and we need NOAA's support to determine it.

Senator Abdnor. In a sense are you asking that the corps get NOAA to do this?

Mr. Hanzuk. Well, what we need is NOAA headquarters to probably modify their priority for the use of the survey ship *Rainier* this summer to accomplish this thorough survey.

Senator Abdnor. Does anyone have any idea what the cost would be?

Mr. Hanzuk. It will be expensive. I don't have a figure to offer you; no, sir.

Senator Abdnor. How long do you think it would take to make a survey like that?

Mr. Hanzuk. Well, in talking in a joint meeting aboard the *Rainier,* approximately 1 month ago, he indicated it would be anywhere from 2 to 4 weeks on a preliminary survey. A formal survey would take much longer and I don't recall the total time period before its completion.

Senator Abdnor. If you start dredging, how much continual dredging would you need?

Mr. Hanzuk. Well, the thing that we are concerned with at the moment is, No. 1, knowing what the bottom of that Upper Cook Inlet is doing to the navigation, and No. 2, it may not be necessary to do any dredging. They may, through the process of this survey, find what some people feel is a natural channel there, but no vessel is going to go through that area that is uncharted or at least not currently charted, assuming that there might be a deep channel.

We need the NOAA survey vessel in that area to do that survey and publish their results in the navigational charts.

Senator Abdnor. How deep has that been in that area?

Mr. Foster. Well, it is about 10 feet shallower than it was 2 years ago.

There has been an existing shoal about 1¾ miles off of West Point and this new shoal is going in an arc starting out southeasterly from buoy No. 5 to the West Point, and it is growing rapidly. I have been watching it now start up and grow for 2 years.

Senator **Abdnor**. Are they having any trouble in any other part of the port area?

Mr. **Hanzuk**. To my knowledge, no, sir, but other pilots in other parts of Alaska might be aware of some typical problems. I'm not aware of any others.

Senator **Abdnor**. Maybe Colonel Nunn can give us a little more information on that. I don't mean to put you on the spot, but it is an interesting event taking place that probably somebody needs to pay attention to.

Mr. **Hanzuk**. Yes, sir; that is our concern. Somebody needs to pay attention to it very quickly.

Senator **Abdnor**. Colonel Nunn, I don't mean to put you on the spot by telling you what to talk about. You can probably talk about that when the time comes, but I see you have a written statement, so you go right ahead.

STATEMENT OF COL. LEE NUNN, DISTRICT ENGINEER, ALASKA DISTRICT, CORPS OF ENGINEERS

Colonel **Nunn**. Mr. Chairman, if you'd like, I'll go ahead and address that very briefly with respect to the Cook Inlet Shoals. That area that is being discussed off Fire Island is not an area in which there is an authorized corps project for dredging. There was, at one time, emergency dredge operations conducted out there by a corps vessel several years ago when there was a similar dredging or shoaling problem.

However, the situation I think has been accurately described by those who have testified. There is a gradual movement of the West Point Shoal. The area that the ships have been traversing is shallower than it has been. We were notified that some ships were beginning to have problems negotiating that shoal and we verified that and asked the Coast Guard to realine the marking in the channel.

I think a survey does need to be accomplished to determine whether or not it is a permanent blockage that is developing or whether or not it is a shifting of the channel and before anything further with regard to dredging should be considered, identification of the location of the channel and so forth needs to be determined.

Senator **Abdnor**. How would you go about it? Would you have to make a request? NOAA has the means and facilities of doing it. Could they just go ahead and do it?

Colonel **Nunn**. I'm sure the survey vessel *Rainer* has a schedule for its work this summer and if it were considered to be enough of an emergency to readjust their schedule, that could be done and that might give information that would tell us whether or not we needed to have a corps dredge or a commercial dredge dispatched to do that.

Senator **Abdnor**. Without putting you on the spot, would you give it a high priority under the circumstances?

Colonel **Nunn**. Well, certainly the corps is responsible for designating navigation hazards and from the reports we have, this is a valid navigation hazard. We have asked the Coast Guard to mark it. It is their responsibility to mark it. We don't have a survey vessel that can say whether or not the shifting of the channel has blocked the channel or whether the shifting has merely relocated it; but I think it is important to find exactly what the situation is out there so corrective action can be taken, whether it is relocating the buoys or dispatching or contracting for a dredge. If dredging is called for, it would require an authorization of Congress.

Senator ABDNOR. Fine, I appreciate those thoughts. You go right ahead with what you have there.

Colonel NUNN. Mr. Chairman, I'd like to start out with a few comments with regard to the Gastineau Channel improvements, as this was one of the first topics brought up here today. I'm not going to read the information which I have submitted in its entirety, but I would like to point out that the work which was done in the Gastineau Channel here in Juneau was authorized in 1945, and it involved approximately a 4½-mile long and 75-foot wide channel to a bottom elevation of zero feet mean level low water. The dredging started in 1959 and was completed in 1960. However, the channel shoaled very swiftly and, in fact, even obstructed the dredge from returning back through the channel when it had completed the dredging operation.

The feasibility report which we performed subsequent to the effort was completed in November 1977 and we determined that the best alternative for the relocation would be to place a 4½ mile, 100-foot wide channel with a project depth of plus 2 feet mean level low water and 17,250-foot dike with a top elevation of plus 25 feet above mean level low water with a top width of 12 feet.

Now, this was costed out at that time at $11,189,000 with an annual cost of over three quarters of a million dollars a year, compared to an annual benefit of something under a half a million dollars a year.

The report concluded, of course, that the project was not economically justified.

We reviewed that report again in 1978 and again concluded that it was not economically justifiable due to the cost of the maintenance dredging.

The channel that I have described, which is considered to be the best that could be built, it should be pointed out, would be insufficient to meet Coast Guard requirements for navigation standards for two-way traffic, so it would have to be a one-way channel. In addition, some of the shipping which uses the Juneau area such as the ferry system would not be able to use a channel of those dimensions, even if such ferry would be able to get under the bridge here in Juneau, which I do not think it can. So there is very limited benefits. However, in view of the mayor's interest and suggestions of some new economic benefits, we would, of course, entertain any description of what those benefits or economically changed conditions might be.

Senator ABDNOR. What makes the benefits so low? Is it because of what you said: You couldn't use it for the larger ships?

Colonel NUNN. The larger ships that would have a commerical advantage would not be able to use it.

Senator ABDNOR. Would this be basically more for recreational use.

Colonel **Nunn**. There would be a large recreational use of the project, I'm sure.

Senator **Abdnor**. That kind of benefits with almost twice the cost of maintaining it.

Colonel **Nunn**. The cost of particularly a project like that is normally maintained by the local interest and it would be a very high cost to maintain.

Senator **Abdnor**. As you probably know, the legislation we are talking about could certainly go in that direction where it would be maintained locally, particularly the dredging part. Would it take a lot of constant dredging?

Colonel **Nunn**. Every year, yes, sir. It would be continuous dredging such as we have to do in Dillingham, another place which has a high silt level. The Ancorage harbor is dredged annually and the Anchorage harbor costs approximately $1,400,000 to dredge just around the deep water port. We don't dredge out in the channel as I indicated earlier, and this would be a similar situation.

Senator **Abdnor**. So I think it is safe to assume that much of this dredging cost in the future, with the legislation we are looking at in Washington, will put more and more of the cost back to the local level and that is something that is going to take a whole new look at when you talk about dredging. Particularly in the deep water ports.

Colonel **Nunn**. Yes, sir. I'm aware of the administration's initiatives in cost-sharing and I would anticipate if such a channel were put in, it would be a continuous maintenance burden for either the Federal Government or the local interest, depending on their cost-sharing arrangements.

Senator **Abdnor**. All right.

Colonel **Nunn**. The next topic that I would like to address is the Snettisham hydroelectric project. In 1962 Congress authorized construction of the Snettisham hydroelectric project. Construction of the first phase, which is the Long Lake phase now in existence, began during 1967 and brought two turbines on line in 1974. That construction involved provision of additional room within the powerhouse and tail base facilities so that a third turbine could be installed in the second stage.

The initial phase met the immediate electrical requirements of the Juneau power market. However, the Alaska Power Administration, acting on the basis of their projections, has requested that the crops proceed with the second Crater Lake phase of the project, providing an additional 27,000 kilowatts of capacity on line.

Now, development of the Crater Lake phase would require the construction of a 7,820-foot power tunnel and penstock, approximately 1 mile of additional project roads, and the installation of a 27,000-kilowatt turbine in the existing powerhouse. Existing housing, access facilities, transmission lines, and the powerhouse were designed and constructed to accept the additional generating capacity without substantial alterations.

An environmental impact statement supplement was prepared for the Crater Lake phase. The final EIS report was filed with the Environmental Protection Agency in April of this year. The comment period closed without any substantial objections being received.

The Crater Lake phase is the most viable source of new hydropower capacity available to the Juneau market and could be developed sooner than any other hydropower project of its size. Because much of the project infrastructure is already constructed, it would be the least expensive and the most environmentally acceptable power that could be added to the system.

As soon as funds are available, we will prepare plans and specifications and advertise for bids. On July 14 of this year, you might be familiar with the fact that the House Appropriation Committee added 2 million to resume construction of the Snettisham project in fiscal year 1982.

This is the status of that project at this point in time, as far as I'm aware.

Senator ABDNOR. They have that in this budget, the $2 million.

Colonel NUNN. That committee did add that as a continuing project.

Senator ABDNOR. Is there a market for all that power? It certainly seems like a bargain.

Colonel NUNN. We have been advised that the power use projections and the marketing requirements for the Juneau area are growing, such that we should have that turbine on line by 1986, and our schedule for construction starting in fiscal year 1982 will put power on line from that turbine in 1986.

Senator ABDNOR. Would a lot of it go for heating? Would there be a lot of electrical heating?

Colonel NUNN. Yes, sir. This is really in Mr. Cross' area, again, but much of the Juneau area, as I understand it, is using electric heat here because of the high cost of fossil fuels in the area.

Senator ABDNOR. It is cheaper. You could install this additional power and use it for heat at a far less cost than oil; is that correct?

Colonel NUNN. If that is not the case now, I'm sure it certainly will be, but I'd like to defer to Mr. Cross for that.

Senator ABDNOR. Well, I should have asked you the question, but is that correct?

Mr. CROSS. Not wishing to get a whole bunch of facts and figures in here, first the heating is very expensive in this country, whether you do it by oil or electricity, so it is not cheap and yes, it does appear to be both reasonably economical and reasonably efficient use of the electricity, to use it for electric heat in this area and quite a good amount of it is going on. One aspect we are particularly pleased to see is the number of electric heating installations which are going in either with a backup wood stove or in the form of a very efficient heat-pump type operation along with supergrade insulation in the homes, so that the efficiency of it is being built into it at a very high level. We think there is reasonable economics to that use of electricity in this area.

Senator ABDNOR. Thank you. Do you have any thoughts on this Bradley Lake project?

Colonel NUNN. Yes, sir. First of all, I'd like to acknowledge Mr. Yould's description of the corps planning process. At the risk of having some displeasure from my superiors in Washington, I'd like to agree that it is a slow process. I don't think anyone would disagree with that. I've heard one district engineer describe it as watching your hair grow so you can decide when to cut it. However, we are, with the Bradley Lake project, on what I would consider a very good planning schedule for the design and construction of that project, and I think this is a large part of why the State has asked that it continue to be constructed as a Federal project, at which time they would like to be responsible for the operation and maintenance of the project.

Congress authorized construction of the Bradley Lake hydroelectric project in 1962. However, following that authorization, the introduction of lower-cost, gas-fired thermal generating capacity in the Kenai and Cook Inlet region resulted in a review and delay of that project.

However, Congress authorized funds in 1968 to reevaluate the project as a source of peaking power. The reanalysis resulted in a recommendation to Congress to provide funds for the advanced engineering and design.

Work is nearly complete on the general design memorandum and that document is scheduled to be published in 1981. Of course, the next step after a general design memorandum is the preparation of the plans and specifications for individual features for construction.

The recommended plan will include a concrete gravity dam, diversion by lake tap into a concrete lined power tunnel, and above ground powerhouse near sea level with an initial capacity of 135 megawatts and an 18-mile overhead transmission line connecting with the Homer Electric Association network. Power-on-line is scheduled now for October 1988.

The project would produce 314 million kilowatt-hours of energy using three 45 megawatt turbines under maximum head of 1,161 feet. The concrete dam would be 130 feet high and the power tunnel would be 16,800 long. Estimated construction cost, involving all costs, is $295 million.

The corps is coordinating with the Alaska Power Authority regarding State participation in funding of this project. Construction is scheduled to begin in December 1982.

Senator ABDNOR. Let me get this in my mind: How would the costs be shared between the State and the corps? How would that work?

Colonel NUNN. At present, we are anticipating that the project would continue through the construction phase as a Federal project.

Senator ABDNOR. Through construction?

Colonel NUNN. We would have to enter into a memorandum of agreement with the State of Alaska in order to accept their contribution of funds and they have proposed to contribute 100 percent of the construction costs. Now, at the present time, there is not a——

Senator ABDNOR. Can this be done now under the law? I'm advised that it can't.

Colonel NUNN. I think it needs to be reviewed as to whether or not we, the Alaska district, could accept State funds for the purpose of 100 percent cost sharing. Cost sharing, of course, has been done. There are precedents for that. However, this would entail eventual State ownership, operation and maintenance of the project after completion. During the construction phase, I would anticipate the State's applying for a license to operate. We would coordinate with them so upon completion of the project, they'd be able to market the power.

Senator ABDNOR. Would they get their revenues from it?

Colonel NUNN. They would.

Senator ABDNOR. Because they put their money into the construction, they, in turn——

Colonel NUNN. Yes, and it is their intention to manage the marketing of the power to the benefit of the State.

Senator ABDNOR. Do you have any idea of how much the Feds would have into it up to the point of construction?

Colonel NUNN. The total preconstruction costs would approximate $12 million, I would say, by the time we would finish our general design memorandum. The first construction funds, of course, would be spent preparing the plans and specifications for construction.

Senator ABDNOR. Did you say this would begin as early as December 1982?

Colonel NUNN. Yes, sir, we could start construction, at that time. If the project is approved for us to go ahead and accept State funds and proceed, we would immediately begin preparation of the plans and specifications. They'd be finished by next year. We'd then go out on the market for contracts and the first contract for construction would be awarded in the late fall, early winter of 1982.

Senator ABDNOR. Do you have any feel how the administration reacts to this?

Colonel NUNN. The policy with respect to this is still being discussed. However, I have discussed the State's proposal with Mr. Giannelli, Assistant Secretary of the Army for Civil Works, and he is very supportive of the cost-sharing proposals and has said that he feels we should be able to work out a mechanism to accomplish that.

Senator ABDNOR. While we are talking about all the problems that come up in trying to get a project from the time we study it off to construction, you admit that this needs to be examined. Do you have any thoughts on it, definite ideas about how we could improve the expediting of projects?

Colonel NUNN. The comments that I would make would fall in line with the comments that have previously been made with respect to a continuing authotity such as we have for small boat harbors. Of course, I am involved with construction of small boat harbors here in the State of Alaska. We did three last year and we have three under construction this year.

That process is a fast-track mechanism that would be useful particularly for small hydro projects that were under either a 25-megawatt ceiling such as Mr. Yould suggested or a project under some $25 million or $15 million, whatever Congress decided would be an appropriate amount for a continuing authority.

We have examples of both fast-track projects where the planning and construction phases have been short and those that have taken decades to accomplish.

Senator ABDNOR. You say you have some plans?

Colonel NUNN. No, sir, I just say we have some examples of projects that have been done in both manners.

Senator **Abdnor**. Do you think they would be useful to us for the record?

Colonel **Nunn**. I don't know that it would be particularly useful as far as discussing the mechanism. The corps is still trying to determine what the best procedure would be to expedite or fast-track this. However, the process in using a continuing authority is very fast relative to the normal construction process.

Senator **Abdnor**. Well. the Bradley Lake project, could that have been expedited much more rapidly?

Colonel **Nunn**. Bradley is probably much larger than you would want to put onto a continuing authority.

Senator **Abdnor**. How about expansion of Snettisham?

Colonel **Nunn**. Snettisham Project II was one that was planned in advance for and it is approximately a $50 million project. Whether or not it would be prudent to consider a project that large under a continuing authority, I would venture to say it is probably not.. There are numerous small hydropower projects that are proposed not only in Alaska but elsewhere that might be appropriate for such a process. I think that the process we go through which is time consuming and conservative is to insure that there are absolutely no problems or oversights or undue costs for the very large projects and I think that where is local cost sharing and the risk and complexity of the engineering that is involved is very much less, that we could proceed safely with a greatly shortened series of reviews.

Senator **Abdnor**. How much time could you have saved on the Snettisham project had you been free to expedite it? Could you have shortened that time considerably? Now that was one where phase 2 was already looked at, wasn't it?

Colonel **Nunn**. I might use a better example, perhaps the one that Mr. Yould discussed that we are still working on. We are looking at a Mahoney Lakes project down near Ketchikan. Because of other power sources in the area, we don't attach as high a priority to that. Consequently we don't distribute the relatively small levels of funding we received for studies to the lower priority projects. Consequently, they get pushed further and further back.

Now, had this project been on a fast-track system, I think that the corps can come very close to performing in the same timeframe that private industry or the State could, but that would involve an abbreviated process. We do that with small boat harbors. One of the larger boat harbor projects in the $8 to $12 million cost frame, from concept, from initial request from the mayor of the town through construction can run 5, 6 years, and I don't think that is unreasonable.

Senator **Abdnor**. Let me jump off to another subject here, and one that I tread on very softly here because it really belongs to another subcommittee and that is the subject of section 404. How do you go about reviewing a 404 application?

Colonel **Nunn**. Well, normally we receive an application from somebody that wishes to perform some sort of development in a wetlands and we proceed immediately to try to obtain all the information we need to put out a complete public notice which will describe to the public what the applicant is proposing to do, where he is proposing to do it. Once the public notice has been sent out and the State sends out a public notice concurrently, we then receive comments from the various State and Federal agencies which have an interest or responsibility.

Senator ABDNOR. How many does that concern? Fish and Wildlife, and what other agencies does that concern?

Colonel NUNN. Environmental Protection Agency, National Marine and Fisheries Service if this is an area of their interest.

Senator ABDNOR. It varies, then?

Colonel NUNN. The State department of fish and game, department of natural resources.

Senator ABDNOR. It that up to you to see that they get notified?

Colonel NUNN. We see to it that they are informed and have copies. The State has a central clearing house that is provided copies of the public notices and they immediately start their review process.

Senator ABDNOR. What do you do, essentially just show them the application or do you take the application and make a study of it?

Colonel NUNN. They have the application, the map showing the location, the verbal description and the entire proposal of what the man or woman is proposing to do and what the activity will be on that wetland and then we have to, after we have received those comments, we will provide copies of them to the applicant so that the applicant can see what criticisms there may be with regard to the project, to see if he can or will or desires to adjust the project in such a way to make it more acceptable, less controversial.

Senator ABDNOR. But any one of the various groups reviewing, could put a hold on it, couldn't they?

Colonel NUNN. They could object and the objection would result in a delay. They really wouldn't have the authority to hold it unless they objected to the project and recommended that I deny the permit. Just the fact that they might suggest that no activity be within 100 feet of a salmon stream, because they recommend landscaping or some sort of filter protection for anything that might be done on the fill, doesn't necessarily mean that it will be denied or stopped. If that goes back to the applicant and he agrees to incorporate those engineering features into the thing and he comes back to us, the permit will be processed as a noncontroversial permit so the comments or suggestions don't entail delay.

If there is an objection, however, that objection is something that will require, the Fish and Wildlife Coordination Act, that I resolve that objection and if I resolve it in favor of the applicant, then I must go back to the agencies and advise them that I intend to issue the permit unless they desire to refer it to higher regional and Washington headquarters for their determination.

That very seldom happens, but that, then again, would delay the process considerably.

Senator ABDNOR. Do you get more 404 applications here than other districts? How many do you get in the course of a year?

Colonel NUNN. It will run between 400 and 500 annually. It has been growing, approximately, I would say, 100 a year for the last few years.

Senator ABDNOR. Do you get additional personnel to help you process them? How many people process these?

Colonel NUNN. My office in the regulatory branch has been growing; not spectacularly, but has approximately a 25-percent larger staff than when I first started.

Senator ABDNOR. I would think this 404 process is enough to keep the staff pretty busy.

Colonel NUNN. They are very busy. There is a number of efforts that we are trying to do to reduce the number of permits that we have to consider. One of them is to try to issue general permits for routine activities that are of minor impact to the environment—such things as pads for houses in remote villages, driveways, small stretches of road, repeat or repetitive things that are done on the North Slope, general permits to allow cities which have zoned certain areas, to have those municipalities evaluate and assess a general permit for certain types of activities in certain zones.

Senator ABDNOR. Would that take legislation on the part of Congress?

Colonel NUNN. We are doing the issuance of those general permits within our existing authorities. That doesn't require any assistance.

Senator ABDNOR. Right now how long does it take, on the average, to process an average 404 application?

Colonel NUNN. Some of them could take a year before the permit would be issued or denied if it were a controversial or very large project and it would depend on whether or not it involved an environmental impact statement as well.

Our average processing time for the bulk of the permits that come into the Alaska district runs approximately 120 days from the time the applicant first comes in with an acceptable application, tells us what we need to go out on the public notice, until such time as it is issued. Now, that is noncontroversial. I would say the controversial permits, you can look at 6 months to 1 year depending on how long it takes to resolve the issues. Normally the extra time is in an effort to try to resolve the issues without sending it forward through the process that would take it to Washington for decision. That is a much longer process.

Senator ABDNOR. Do you have authority yourself to decide on issuing permits?

Colonel NUNN. I can issue or deny a permit. But if the Fish and Wildlife Service, Environmental Protection Agency objects to something, I cannot issue it over their objection. If they desire to have it referred to Washington—I will say that in the 2 years I have been here, we have never referred one of these permits to Washington. We have had objections and we have issued over their objections.

In other words, they would state that they did not agree with the proposal; however, they did not consider the impact on the resource to be of such importance that it would justify holding up the process any longer.

Those are very difficult ones and I think the agencies that have resources that they are responsible to protect have taken a good, hard look at it. They have let me know what their situation is, when I do the overall public interest review, to decide whether or not it is in the public interest to go ahead and issue it or deny it and I take those things into consideration and what they have done in the last 2 years anyway is they have concurred in my assessement that the permit should go ahead and be issued to the applicant, whoever it is, as being—they are agreeing with my judgment that it is in the public interest that we go ahead with the development.

Even though there is an adverse impact, they are essentially saying that it is not so unacceptable that we would delay the process further.

Senator ABDNOR. Can you tell me what percentage do you eventually turn down? Is it very small?

Colonel NUNN. Last year out of a total of some 400 permits processed, I believe there were 18 denials, total.

Senator ABDNOR. Well, I have had you up here a long time. Thank you very much.

Colonel NUNN. Thank you, sir. I appreciate this opportunity.

Senator ABDNOR. I am sure that some people think that a one-man hearing does not amount to much. Let me assure you that many hearings in Washington are conducted with only one Senator present.

The main thing is what we get into the record that we go over afterward. I say that for the benefit of the people here today. While I may be just a one-man committee at the moment, the material will be used by many more, I assure you, and we are glad to have it. Thank you. We will take a short break here.

[Short recess taken.]

Senator ABDNOR. I'll call on Sue Mathers next. Is Sue Mathers here? Derwood Zaelke, Sierra Club? Is anyone here from the Sierra Club? Well, OK.

Are you ready now? Why don't you spell your name?

STATEMENT OF WILLIAM CORBUS, MANAGER, ALASKA ELECTRIC LIGHT & POWER CO.

Mr. CORBUS. My name is William Corbus, C-o-r-b-u-s. I'm the manager of the Alaska Electric Light & Power Co., which is the electric utility that serves the majority of the Juneau area, and at this particular time, we are the primary customer of the Snettisham hydroelectric project.

Our track record in the last 10 years in terms of the magnitude of rate increases that we've had is, to my knowledge, the best one by far of any utility in the State, and the primary reason for that is that we are able to buy Snettisham power at a relatively low and a relatively constant rate.

We participated, worked with the Alaska Power Administration when they prepared their power market analysis projecting the energy requirements of the area and we agree with their findings and we endorse their recommendations, which are to proceed with the development of the Crater Lake project.

That, more or less, summarizes what I wrote you in a letter. Now, I heard your question about the electric heat thing. Virtually all new construction today is electric heat. There is a very good summary on the addendum to the power market analysis on page 2 which points out that on December 31, 1979, there were 56 electric heat customers in the area. On December 31, 1980, there were 358, and as of June of this year, there is 559.

Senator Abdnor. Can you tell me, those that switch over, how does the cost compare?

Mr. CORBUS. First of all, those haven't all switched over. Some of those have built new. The cost right now, if you were starting out, you are going to have the question when you are building a new house whether you are going to put in an oil system or an electric heat system—your energy cost would be less if you went all electric.

Now, if you had a situation where you were converting over a house and you had to include the additional capital cost of putting in your new furnace and all that, it is really sort of a marginal thing. Just the same, people are still doing it and we look for the trend to continue.

Senator ABDNOR. You feel that with the additional expansion of the project, that you will have a market for the extra electricity?

Mr. CORBUS. Yes, we do, sir.

Senator ABDNOR. By the time they go on line, you will have the demand for it; is that right?

Mr. CORBUS. Right. I'm concerned right now that the way the growth of the area is continuing and the outlook, and conversion to electric heat, that we won't have sufficient energy available, and sometimes Government projects run into stumbling blocks and what would happen if the Snettisham Crater Lake is not available when we forecast it is going to be needed.

Senator ABDNOR. You are an authority on power. Do you foresee in some parts of Alaska, where you have a lot of coal, power plants using coal or do you think it will be more and more in the hydro?

Mr. CORBUS. I don't think I am enough of an authority to state that.

Senator ABDNOR. I won't put you on the spot. I do know that there is talk about mining more and more coal. Seward is where I was the other day and they were talking about that as a possible port for shipping out of coal. You have a very, very rich State in terms of natural resources. You could do a number of things up here.

Thank you very much, Mr. Corbus. I guess we have Mr. Clark here at this time. Are you Mr. Clark?

Mr. CLARK. Yes, sir.

Senator ABDNOR. Fine. Pleased be seated.

Mr. CLARK. Thank you, sir. With me is Mr. Norman Staton, Senator, who is one of the directors at Sealaska Corp., and Mr. Peter Huberth, who is a logging engineer with Alaska Lumber & Pulp.

Senate ABDNOR. When you start, would you state your full name so the young lady can put it in the record?

STATEMENT OF JIM CLARK, ALASKA LOGGERS ASSOCIATION

Mr. CLARK. Senator, what you see before you basically is the timber industry in southeast Alaska. I am Jim Clark and I am representing the Alaska Loggers Association. With me is Mr. Norm Staton who will be representing Sealaska Corp., which, as he will explain to you, is a private interest.

So we divided up the testimony into two parts. I'll go through my portion and obviously Mr. Staton will introduce you to his.

We'd like to thank you personally for coming to Alaska, Senator Abdnor. We are always delighted to have visitors from the Lower Forty-eight and we recognize that having had a chance to cut our teeth on the section (d)(2) process, what it means for a Senator to leave his district during a period like this to come to another State, so we realize that this is a sacrifice for you personally and we just really appreciate you coming up here to find out how things go in Alaska.

As a general matter, we are extremely pleased with the operation of the Corps of Engineers in Alaska. We think that Colonel Nunn is an outstanding leader who has done an excellent job in making these regulations work. We have nothing but the highest praise for his department and for him. Coming from the timber industry, I don't want that to be the kiss of death for Colonel Nunn, but he has done an outstanding job.

We want to focus on a couple of problems, though, that we think would be useful to these oversight hearings and with some suggested recommendations.

One of the key problems that we have—which the forest industry has, basically for the most part, is getting Corps of Engineers permits for logs storage and log transfer facilities and other agencies, other Federal agencies and the State coastal agencies are concerned with this particular problem, too, and as a result of the Fish and Wildlife Coordination Act, they are one of the agencies that are notified by the Corps when we seek to get one of these permits.

The question we have or the problem that occurs is that when one of these agencies objects to a Corps of Engineers permit, it precludes the Corps of Engineers from reaching a decision at the district engineer level. Indeed, it precludes them from reaching a decision at the division engineer level and indeed, disputes have to go all the way to Washington for resolution. We think that that is not a good way to proceed.

On page 3, Senator, at the bottom of the page, is the language from 33 CFR, section 325.8(b) of the Code of Federal Regulations to which I refer. Just for the benefit of the others here, too, it says:

> Unless otherwise precluded by this regulation, district engineers may issue permits over an unresolved objection of another federal agency if that agency indicates to the district engineer that it does not desire to refer the application to a higher level of authority for review.

In other words, if there is an objection, for whatever reason, meritorious or nonmeritorious of a Federal agency to the issuance of a permit, all they have to do to prevent a decision from being made is to not indicate that they are going to take it up to the next level of review.

So this has created an awful lot of problems. Most of the agency and administrative law works this way. For example, the Forest Service. You will go in and you will ask and the Forest Service will make a decision. If an agency objects to that decision, they can do this: They can file an appeal, a notice of appeal, and they can also file a request for a stay at the chief's level. So, for example, if the region 10 forester, the regional forester makes a decision that we are going to go ahead with this timber sale and an agency objects, the objection goes to the chief, if it is a regional forester's sale, along with a notice of appeal and also with a request for a stay of the timber sale and the first thing the chief will decide is whether or not to stay the timber sale. But the Corps of Engineers doesn't do that.

They don't reach a decision at the first level because this regulation precludes them from doing that and this, we feel, is a key problem.

What we'd like to see done is that nonmeritorious objections, that the district engineer has a right to knock out nonmeritorious objections and make a decision at the first instance with any objecting agency having the right to appeal obviously, as well as the right of request a stay. We had one recent instance last week when we were trying to get a Corps of Engineers permit for a particular facility. The objection was that it was a barging facility that we were going to put in, meaning that there would never be any logs in the water; but the representative from the National Fisheries Service said:

> Usually fishermen associate these types of facilities with logs in the water, and therefore even though the reality may be that there will be no logs in the water, the perception will be if we authorize the permit, that there will be logs in the water, so for that reason we are going to deny the permit.

Now, I don't know that that man would ever have the courage to commit such an objection to paper, but just to follow through, follow the logic of it through, as long as he failed to indicate that he was going to let the thing—not take the thing up to the next level of review, the district engineer, by this regulation, would be precluded from reaching a decision and it would have to go to the division engineer and then to the chief of engineers for a resolution to be had.

We hope that perhaps in your oversight function you might take a look at this.

Senator ABDNOR. How often have you had that happen with the group you are representing?

Mr. CLARK. Let's talk about how it works as a practical matter. As a practical matter, Senator, what they do is they say, "OK. We act as a clearinghouse. We have a clearinghouse function. You have to go out and make all the other agencies agree and if you can make the other agencies agree, then we will issue the permit. If you can't get the other agencies to agree, now, here's what you are stuck with."

Now, I took one client through—in the timber industry. I took one client through the whole process. It took 5 years, and we got a decision finally from the Secretary of the Army, so if you cannot get all the agencies to agree, you can't even get a decision until you get two more levels up, and that is up to the Chief of Engineers, and in this case, it was a 5-year situation I'm talking about. We went to the Chief of Engineers, and then his decision was reviewed by the Secretary of the Army and the Secretary of the Interior; so you do get into a very lengthy procedural battle here that you don't get into with other Federal agencies. It is a completely different situation.

Senator ABDNOR. Mr. Clark, don't get me wrong, but I remember when Colonel Nunn was talking about the 404 applications, he said he didn't think he had very many referred to Washington. Is this a section 10 permit?

Mr. Clark. This is a section 10 permit we are talking about.

Senator Abdnor. I was just curious whether that was more controversial than the 404 applications.

Mr. Clark. As I said, usually you'll try to go back and get consensus, and if we can't get consensus, we can't do it. As a practical matter, we can't take the time to go through a 5-year process, so as a practical matter, that means that—this is the reason we bring it to your attention, because if we can't get 100 percent consensus of the agencies, then we can't go forward.

What that means is that, unlike other Federal law where we can say, "Your decision is arbitrary and capricious," and take them to court under the Administrative Procedures Act, we can't do that with this agency because there has never been a decision reached. There is nothing to sue over, and so it really is, I think when you boil it all down, an accountability problem. An agency can object without really being accountable for its action, and in effect, it denies the permit by a single agency veto, and that is the problem we are referring to.

Senator Abdnor. Let me ask you this, do you think that the decision should be solely the corps?

Mr. Clark. No, Senator, I don't think it should be solely the corps', but I do think that the district engineer should make the decision in the first instance, and any agency that objects to that should have the right to appeal to the next level up; namely, the division director, or the division engineer, and it also should have the right to ask the division engineer to stay the project which the district engineer has just approved and to which that agency is still objecting.

We believe that all these agencies should be involved in the first instance, but somebody has to be able to make a decision. Somebody has to say, "I agree with the points you've raised, but I don't agree with the points you've raised, and I think that sitting here exercising substantive discretion over whether or not this ought to be issued or not, I plan to issue that permit," and then, as I said, the objecting agency should be able to challenge that, but should not, by virtue of its own objection, where everyone else has agreed to it, stop that from happening without even the applicant ever having the right, as a practical matter, to sue that agency, because the agency—no one has reached a decision. There is nothing to sue about. As a practical matter, you look at taking this thing through the division engineer's level where they still won't reach a decision and going all the way through the Chief of Engineers before they get an initial decision. I think that's what is wrong with this regulation.

Senator Abdnor. Thank you.

Mr. Clark. The second point I want to make—and I think this will be a little bit simpler proposal—is that we have 5-year plans for logging on the long-term sales here, and I am sure there are other projects that include Corps of Engineers permits. In other words, our 5-year timber sale programs will include a series of log transfer facilities, and as part of the environmental impact statement attached to the approval of that 5-year operating plan, we would propose that the agency review those facilities for that purpose, for the purpose of the environmental impact statement; also constitute agency review for purposes of the corps' clearance.

In other words, it could work something like this, that at the same time the Forest Service puts out notice for EIS purposes to the other agencies under circular A-95 so that they could review the EIS process into which we are going, there will also be a notice come out from the corps to let all the agencies that have an interest in the Corps of Engineers permits, the section 10 permits that we are going to need, have them get involved in the process at the same time so we can wrap all the approvals together.

In almost all cases in which I can state, Senator, they are the same agencies, so right now the agencies have to approve the corps—or these log transfer facilities when they approve the EIS, and then they have to go out later and approve—go through the same process when we apply for a Corps of Engineers permit.

What I am suggesting is that perhaps we have a change in the regulations so that the approval of the agencies for purposes of the EIS process also constitute approval for purposes of the section 10 process.

We have run into one little trip problem on this, and that is that the Corps of Engineers usually has a time limit associated with the issuance of the permit. I think you have to begin construction within 12 months and finish it no later than 36 months, but I think that perhaps if we worked an exception like this, we could work with that problem. I don't think it is insurmountable in terms of how this procedure might work, and it would save all the agencies time and money as well as the applicant, in terms of getting these approvals.

Senator ABDNOR. I'm just curious: Have you visted with Colonel Nunn at all regarding this?

Mr. CLARK. We have suggested this to others but not directly to Colonel Nunn, and I apologize for that. Senator, I can only say that you were the catalyst for us pulling some of our thinking together.

Senator ABDNOR. I'm happy to hear it. I'll make sure it gets into the record.

Mr. CLARK. We have not had the chance to formally propose this to Colonel Nunn, and we will do so, but it is just the thoughts that we had as we were preparing this testimony for this hearing.

Senator ABDNOR. Fine.

Mr. CLARK. The third and final point I want to make—and I apologize for taking up the time——

Senator ABDNOR. We are happy to have it.

Mr. CLARK [continuing]. Is with respect to, again, looking at our facilities which are basically log transfer facilities and log storage areas, the question of safety and what I mean by safety is both safety to personnel and to the logs that we raft, when we are in fact rafting logs; and the problem becomes that we have been forced into more and more open water, and by that I mean water that is exposed to the wind and with the more open body of water, the very strong hurricane-force-type winds that we have come through here which can blow the log rafts apart and which can constitute a danger to navigation and safety and everything else.

We find ourselves being forced out of the protected bays and into these open waters on a continuing basis.

Senator ABDNOR. I'll call time out here and welcome Senator Murkowski.

Senator MURKOWSKI. Can I interrupt and extend my apologies for any inconvenience and I hope it wasn't too inconvenient, but I know my colleague, Senator Abdnor, had things well in hand. You know, in the last 15 or 20 years, I have not missed an airplane, but Golden Valley evidently shut off the electricity because I got up at 6 o'clock and was wandering around and we deciding whether I should catch the 7 o'clock plane or the 7:40 because I was worried about the traffic. My wife phoned me and said, "You've got 3 minutes to catch a 7:35," and that was the end of the day, so my apologies. It is a good thing I didn't pick you up.

Senator ABDNOR. I had the good fortune in staying at my hotel last night where they corrected the time so they called me at the right hour. But I know the Senator's problem.

Mr. CLARK. Senator Murkowski. I've just handed you a copy of my testimony.

Senator ABDNOR. Why don't you review it again for Senator Murkowski? Why don't you just quickly hit the highlights.

Mr. CLARK. I'll give you what some of my friends call the Reader's Digest version of what I've gone over.

Senator, there are three key points to my testimony. This is from the Alaska Loggers Association today. The first point is that we are concerned with the process of decisionmaking where a Federal agency objects to a corps—issuance of a Corps of Engineers permit; specifically in the situation where it is a nonmeritorious objection.

I'm sure that Mr. Devore will be able to fill you in on this a little bit further, but the key problem is that an agency can object without much accountability at all, and it forces the district engineer—it puts the district engineer in a position where he cannot reach a decision.

As a practical matter, this scratches the project because it means, as a practical matter, that we have to achieve consensus with every Federal agency, and if one agency objects for any reason and says, "We're not going to give you consensus," then the district engineer cannot reach a decision. The division engineer cannot reach a decision. It goes all the say up to the Chief of Engineers before anybody is allowed to make the initial decision, and that decision can then be appealed to the Secretary of the Army.

I've been through one of those. It took 5 years, and I can assure you that most clients cannot hold up their projects for 5 years, so basically that means that you just don't do the project.

We have suggested a way out of that. We think the people here do a fine job. The district engineer and the Corps of Engineers here does an excellent job and we'd like to see them be able to make a substantive cut in the first instance. They might say, "We agree with your objections, agency, and we are not going to issue the permit, ALP," and you go take your appeal; but I think they also should have the right to say, "We have listened to your objection, Fish and Wildlife Service, and we disagree with it. We are going to approve the permit. If you disagree with us, you may now appeal up to the division engineer and ask the division engineer for a stay of the permit that I'm about to approve until such time as he's had a chance to review it, but I'm going to approve the permit at this point in time."

We'd like to see the district engineer have some substantive authority to deal with objecting Federal agencies.

The second point dealt with the streamlining of the process—you are familiar, Senator, with the 5-year operating plans that we have in the long term contracts here and as part of that process of reviewing the 5-year permits, all the agencies get involved in looking at the log transfer facilities and the storage areas for which we are going to need Corps of Engineers permits and what we are suggesting is combining the two processes so that when they look at the 5-year operating plans for the Forest Service purposes, for the NEPA purposes, and they look at the log transfer facilities for the EIS and for NEPA purposes, that they also look at those log transfer facilities for Corps of Engineers purposes and therefore, the agencies won't have to go out on the ground to review essentially what they have already reviewed again, and we don't have to bear the expense and the delays and really, I said that in the wrong order. It is delays, and therefore, expense of having a second review.

The final point that I was making for my portion of this testimony is with respect to safety, and I was saying that as a result of fish and wildlife concerns, which I think are very valid and need to be carefully plugged into this system, we are getting pushed more and more out of protected waters for our rafts and into the open areas such that serious proposals are now being made that we should have rafting areas almost in areas as exposed as Chatham Strait, Icy Strait, Peril Strait, and with the winds that blow through there in the wintertime and other problems, we just believe that we are going to have to make safety more of a factor. Safety should not be the predominating factor, but it should be among the factors that the corps includes in its consideration and should be able to, in balancing things out, say that the "fish and wildlife concerns are fine, but we are going to look at safety, too," and come up with a balance between the two in the discretion of the district engineer.

This is something, incidentally, that we have convinced the State of Alaska under the State Forest Practices Act, should be looked at in making a cut on siting of log transfer facilities for tidelands use purposes, so we, I think, would be able to suggest language very easily that just becomes a factor in this review.

I'd like to thank you for the time, and I'd like to thank you for coming, Senator Murkowski. We are very, very pleased to have Senator Abdnor here. I know what a sacrifice it is for a Senator to come and spend time from time he could be spending in talking to people in his district, and come to Alaska to learn of our problems, and we surely appreciate that, and I thank you.

Senator MURKOWSKI. Thank you, Jim.

Senator ABDNOR. Let me thank you again. It is my pleasure. This is my first visit to Alaska and it is has been beautiful. I have a hunch you will never have trouble getting this Senator back the second time.

Senator **Murkowski**. Well, we know that we can get you back a second time, and I very much appreciate, Senator, your willingness to chair this hearing and I'm sure you found it informational and educational and you've had, I'm sure, a representation from the fishing industry, the timber industry, the Corps of Engineers, and you are getting a well-rounded exposure to some of the Alaska opportunities and problems.

Senator **Abdnor**. But more than that, Senator, this is going into the official record that will be used by more people than just you or I and that's good. Norman?

STATEMENT OF NORMAN STATON

Mr. **Staton**. My name is Norman Staton and I represent Sealaska Corp., one of the regional Native corporations.

Sealaska would like to thank you Senators for coming to the oversight hearing to explore the operations of the Corps of Engineers in the State of Alaska. Before we provide our comments on the Corps of Engineers, it probably would be beneficial to have a brief summary of the connection with Sealaska Corp. with the Corps of Engineers.

Sealaska is one of the regional corporations created out of ANCSA, the Alaska Native Claims Settlement Act, in 1971. Sealaska received approximately 556,000 acres of land in Southeast Alaska. As a result our interaction with the Corps of Engineers will be quite frequent due to our development of these lands and is predicated upon the use of navigable waters for access in transshipment facilities such as docks and log transfer facilities.

The actual scope of our interaction with the Corps of Engineers is rather large when you consider with all that land that we have, that the navigable waters that come under the jurisdiction of the Corps of Engineers is approximately 683 miles.

To date we have had very good response with our permit applications with the Corps of Engineers under section 10 of the Rivers and Harbors Act. However, we are frustrated by the limited authority of the Corps of Engineers to rule upon the merits of unresolved objections of another Federal agency. Mr. Clark has probably gone into that in a little more detail than I'll go into now, but we are very supportive of that position.

An example of what Mr. Clark was talking about, a real example of that has cost my corporation some money, time and money as Mr. Clark has pointed out, was in Hobart Bay, which is approximately 50 miles southeast of here. We were going to be putting together a log transfer facility and the National Marine Fisheries objected to the facility, to the permit being granted by the corps, because fishermen had claimed that it would bother their drag use by trollers, would inhibit their fishing.

We attempted to go through the National Marine Fisheries and Alaska Trollers Association to arrive at what their problem was. After a significant period of time had passed, several months, we couldn't track down anyone who had specifically had an objection; so then we went back and the Corps of Engineers overruled or should have overruled the National Marine Fisheries' objection so that we could have built our facility.

As a result, we were delayed numerous months in creating our facility, and we, like I say—Mr. Clark has pointed that out, the amendment that we would like to see to allow the corps to overrule those objections which aren't substantiated.

Senator MURKOWSKI. Mr. Chairman—excuse me, Mr. Staton—but I don't quite understand the terminology. A "drag" used by trollers—are we talking about small trollers in Southeast Alaska?

Mr. STATON. Right, the Alaska Trollers Association. They probably drag through certain areas where they fish. The "drag" being probably their terminology, meaning where they go with their lines through the water.

Senator MURKOWSKI. But that certainly isn't in the proximity of a log transfer facility in Hobart Bay, is it?

Mr. STATON. That's what they were claiming, and that is what we were trying to get to the bottom of. You know, what exactly—show us some data, show us something showing how we would bother you, and we felt that that was not a valid objection to our construction, and yet, when the National Marine Fisheries Service voiced that concern to the Corps of Engineers, that stopped the corps from giving us our permit and then we went back and said, "OK, can we sit down and talk and work these things out and see what exactly the fishermen's problems were?" We went back and were delayed for a considerable period of time and eventually could not find any fishermen that would go on record as saying they were against that.

We went through the Alaska Trollers Association. What I think, you know, is that they really didn't want us to build it there, but couldn't substantiate it. The fishermen were probably afraid of any type of impact at all, without substantiation.

Senator MURKOWSKI. How was it finally released, the objection of the National Marine and Fisheries Service?

Mr. STATON. That was overruled—no, it wasn't overruled, it was withdrawn finally.

Senator MURKOWSKI. But it caused you a substantial delay?

Mr. STATON. A couple months' delay.

Senator MURKOWSKI. I think anyone that would have knowledge of the area and knowledge of trolling in Hobart Bay; I just don't see the connection.

Mr. STATON. That was what we were trying to say, using an example of another agency being able to stop the Corps of Engineers.

We believe that the amendment that Mr. Clark has suggested to allow the Corps of Engineers to overrule them is consistent with the regulatory reform efforts presently being undertaken by the Governor of Alaska. He has instructed the State agencies to cooperate with the Attorney General's office in developing a uniform procedure regulation for the permitting process and to eliminate unnecessary and duplicative reviews for both the Federal and State applications by State agencies.

As a part of this process, the Alaska Department of Natural Resources is preparing a southeast Alaska tideland area plan. The long-range objective of the plan is to classify and designate acceptable uses for tidelands in Alaska. The first phase of this plan is to identify all potential log transfer facilities in southeast Alaska.

Once that inventory is complete, all affected State and Federal agencies and the Corps of Engineers will review the sites and comment on the acceptability of those sites.

Through that public hearing process and agency participation, those areas designated as acceptable will be classified for log transfer facility uses.

We believe that with our extended involvement in the area—and we would request that the Corps of Engineers be aware of the State tidelands plan and participate in the process when they come about designating these area. The purpose for that encouragement is so that extensive agency and public involvement will occur and that for those log facilities that will be resolved at the first instance, because once these areas are designated, the user must still apply to the Corps of Engineers for a permit for construction; so they are going to have to go through a rehashing, once you go through the State plan, then to create the actual construction you have to go through another permit application which will cause a lot of the issues that have already been discussed under the State plan, and the same objections that have been made, to come up again; and we believe that this could be streamlined to the point of allowing, if we can get all the information in the first time through to the State's plan, then when we come back through with the permit with the Corps of Engineers, any new information we have no problem with coming in.

Any information that is just merely a rehash of that information or those objections that have already been presented to the State plan, should be ruled out as nonmeritorious objections.

Recognizing that the State tideland area plan is just now being formulated, we encourage the corps to participate in the project and that our proposed amendments to their regulatory authority may be made in order to allow them to more effectively implement the results of the Alaska tideland area plan.

Again, we thank you, Senators, for coming here and having the oversight hearing, and if Sealaska can be of any help in the future, we would be more than happy.

Senator **Abdnor**. Thank you, Stan. How long have you had this regulatory reform going on?

Mr. **Staton**. It first started, I'd say, about 2 years ago. The Governor had an office of regulatory reform. Unfortunately that didn't work very well because I would have to candidly say that people who were involved in it were not attorneys and were not real knowledgeable on regulatory reform. As a result, because that wasn't working very smoothly, when they tried to streamline the permit process, the agency could not see how it would work very well and they then closed down the regulatory reform office and put it in the attorney general's office, where they had the attorneys that regularly deal with the permits and regulations streamline it, and that has happened over the past year.

Senator **Abdnor**. You would like to see them tied together?

Mr. **Staton**. Yes. Like I said, the things that I'd like to see tied together are those issues that would be a rehashing of something that has already been discussed at another level that would be duplicative and slow down the process.

In order to give the public participation and be fair about it, anything new we would have no objection to it coming up.

Senator **Abdnor**. Fine. This is all very helpful, these suggestions.

Mr. **Clark**. Senator, Mr. Huberth is with us. He's a logging engineer and is available to answer any questions that you might have in terms of how it actually works on the ground.

Senator **Abdnor**. Well, would you first have any comments you'd like to make?

Mr. **Huberth**. I'm not interested in taking up your time.

Senator **Abdnor**. That's fine, that's what we are here for. Please go right ahead.

STATEMENT OF PETER HUBERTH

Mr. **Huberth**. My name is Peter Huberth, H-u-b-e-r-t-h.

We have had several instances on the ground when we will try to bring all the agencies of interest together in order to show them a potential log transfer site, and on a number of occasions, we have asked someone, say, from National Marine Fisheries, Fish and Wildlife to attend those sessions and they have declined, so that in the instances that have been brought to my attention, they have always gone out separately from the group and therefore, it denies us the opportunity to get their direct comments on the ground so that we can see if there are appropriate modifications that can be made and thereby cut down on the time involved in the permitting process.

We would hope that in the future, we can get better cooperation in order to accomplish those types of goals.

Senator **Abdnor**. Do you have any reason why you feel that they won't appear at the same time, when you ask them to come in, they won't come in at all?

Mr. **Huberth**. I don't know whether it is due to the fact that they have other priorities in their schedule.

Senator **Abdnor**. But it has happened several times?

Mr. **Huberth**. Yes; it has happened several times over the last few years or so.

Senator **Abdnor**. Have you ever had them out when you've asked them?

Mr. **Huberth**. Yes, but not when we have been diving on the site, and in the instances when we failed to clarify—there are instances when all those people who are really going to take an intensive look or inventory of a potential log transfer site will go out there with their wetsuits and oxygen tanks and the whole works and dive on in to see what is on the bottom to see what the problems might be as far as small fingerlings are concerned, crabs, et cetera, and therefore, what might be done to move a potential site, modify its design in order to help mitigate the environmental problems for those animals and fish, and there have been times when we can't get all the agencies out there, so that we can do a constructive job of meeting these situations.

Mr. **Clark**. Senator, just to tailgate off that point, what we'd like to be able to do is make the Federal agencies, specifically National Marine Fisheries and Fish and Wildlife Service, as cooperative in this regard as the State of Alaska has been.

Mostly through the coordinating council, the State Coastal Zone Coordinating Council, we are able to get all the State agencies to come with us on a trip. We had one last Thursday. It is usually those agencies—we can usually sit down with the State agencies that have a problem with what we are proposing and negotiate with them. They say, "Well, we have a problem because your proposed construction will do this," and we can usually say, "Well, what if we did that," and they are easy to work with. They are much easier to work with than the Federal agencies, and you will notice that the proposal that we are making changes the situation with respect to objecting Federal agencies. We are not dealing with the State because the State, we have never really had a problem. We have been able to negotiate and work out problems with the State. The consensus thing that we are pushed to works very, very nicely with the State of Alaska.

The place where we run into a problem is with the Federal agenices. As I said, we sometimes end up with widly nonmeritorious objections which we could go in and it would be almost a laydown on an arbitrary and capricious charge under the Administrative Procedures Act, if that agency were accountable to some court. But under this regulation, they are not accountable, and that is our problem.

Senator ABDNOR. Let me ask you, any one of the three of you: Have you seen any improvement under the Reagan administration?

Mr. HUBERTH. I don't think that it has had time to filter down yet, Senator, not really, and I want to disabuse you of one thought which might cross your mind from what Mr. Clark said, and that is the State agencies don't roll over and play dead, just because, you know, we are closer to home and maybe can exert some more pressure. We recently—we are reviewing three separate sites, one of which we had to have, and they quickly let us know that two of them were not satisfactory.

Senator ABDNOR. So you had to prove yourself there too. Well, thank you, gentlemen.

Senator MURKOWSKI. Mr. Chariman, I'm sure it came out in previous testimony, but roughly how many Federal agencies would be involved in the average log dump situation?

Mr. CLARK. Well, other than the corps, Senator, it is the Fish and Wildlife Service, and the Forest Service, of course, because they are involved with these facilities, also, and the National Marine Fisheries and our problems, basically, have been—and maybe it is a communication problem we need to work out on another basis, I don't know, but our problems are basically with the Fish and Wildlife Service and the National Marine Fisheries.

Mr. Staton gave you one example of a problem and I think just before you came in, I set out another problem where we were told that National Marine and Fisheries would not agree to let a permit go forward because fishermen's perception of what we were doing was different from the reality of what we were doing, and that, to me, is obvious that there would be really no question on an arbitrary and capricious charge before a Federal court, but since the district engineer can't make a decision because they have objected, how can we sue?

That's the problem. That's why we need a change in the regulations.

Senator MURKOWSKI. Is it your recommendation that the corps be given the authority to override the objection?

Mr. CLARK. Senator, it is my conclusion from having worked with Colonel Nunn, that if the National Marine Fisheries person had the courage to commit what I just described to paper, he would have laughed him out of the room, and he'd reach a decision and if they wanted to appeal on that basis, they'd be allowed to appeal; but the problem is we can't get there from here because all they have to say is "We are not going to give you any indication about what we're going to do at the next level," and Colonel Nunn's hands are tied, and that's the short of it.

Senator MURKOWSKI. I assume that in previous testimony, the corps has indicated that they would be willing to——

Mr. CLARK. Unfortunately we were in another meeting and I did not get a chance to hear Colonel Nunn's testimony. He has not had a chance to respond to this. Your calling of this meeting was the catalyst for getting some of these thoughts committed to paper.

Senator MURKOWSKI. In deference to the colonel, it is unfair, but we'd be interested. Maybe at the conclusion we could ask you for the record if the corps would be willing to undertake this responsibility, as perceived by Mr. Clark, from the standpoint of a coordinationg override. Of course, the safeguards still have to be maintained on the individual agencies signing off, but it does appear that there is a better way to at least coordinate the effort.

Mr. Chairman, I would hope that that would be appropriate at the conclusion maybe that we could call Colonel Nunn back.

Senator ABDNOR. Any other questions?

Senator MURKOWSKI. I have one other general observation, Mr. Chairman. The general areas of consideration for the hearing were Bradley Lake, Snettisham, the Gastineau Channel and section 404. Have you taken that up?

Mr. CLARK. Senator, we—and I'll let Mr. Staton speak for Sealaska—we in the Alaska Loggers Association have not had a problem with 404. There is a general permit that exists with respect to minor dredging and fill that we have on our logging roads for culverts and bridges.

The only place where we might arguable have to get a 404 permit is with respect to the roads on muskeg, but I can say very truthfully that we have had no problem with respect to 404, and that is why we didn't mention it.

Senator MURKOWSKI. If you haven't had a problem, I won't bring it up again. It will come up by itself.

Senator ABDNOR. Well, thank you, gentlemen.

Mr. CLARK. Thank you, Senator.

Senator ABDNOR. Colonel Nunn, would you mind coming back? Would you come forward and give us your comments? You'd have to work with it if such a thing ever happened, and we'd appreciate your comments. It is your misfortune for staying on.

Colonel NUNN. Senator Murkowski, if I understand your question, it is whether or not we'd be willing to undertake coordination with these Federal agencies and we, of course, do give the applicant the opportunity to comment on any objections that an agency might raise with regard to their project, as I indicated in earlier testimony.

The same would be true for section 10 as well as for section 404. Now, when those objections do not appear to have merit, we will make some qualitative judgments when it comes time for the public interest review, and we may even do that when we first receive them.

Nevertheless, we do send them to the applicant for his remarks and resolution. I do think the idea of having everyone together on the site would be the optimum way to resolve the issue as quickly as we could, in a strict sense.

However, from a logistical sense, in the State of Alaska, I'd probably need to double my staff to get enough people available to coordinate 500 permits all over the State, that applicants would want to have all agencies present so he could explain them.

So we necessarily conduct a lot of this review through the mails and through a process of phone calls and we can get, even for my monthly permit review sessions where we go over the more controversial or larger projects that are in process, we don't always have all of the State and Federal agencies present. We do use that mechanism to try to break the log jam, so to speak, and the corps at that time will express its views that this or that objection does not appear to have a great weight or force of investigation behind it and we'd like to know more about it and perhaps we'd have the applicant at those monthly meetings for the same purpose.

But to get them down on the actual site, at a remote location which would involve chartering float planes and so forth, it would be very awkward, and very often I know the Federal agencies have problems because they will have a specific individual that works that region and that particular individual will not be available so they will have to pull somebody off—perhaps somebody who is not familiar with the area—to go down and do the meeting.

It is a very complicated procedure, and I speak with some knowledge because I've been trying to hold—we have convened monthly meetings with the agencies that started when I first came to work in the Alaska district 2 years ago. We have tried various mechanisms that have been suggested during a wetlands task force deliberations that we have had to try to speed these up, and that is almost beyond our capability. I do try to coordinate wherever there is a possibility of assisting an applicant, but I do not think, realistically, we could go that far.

Senator MURKOWSKI. Tell me, how many applications would your office receive in what is considered the Alaska construction period, from spring through fall, and out of that number, how many would likely be significant enough to be contested by one or another of the agencies? I'm just trying to get a handle on how many and how significant some of these applications will be.

Colonel NUNN. In a year we will process 400 to 500, not counting a big project like the gas pipeline, which we handled in a special fashion; but that will add another 400 permits. Within 400 to 500, and within that 400 to 500, you will start out with perhaps 100 of them that appear to be potentially controversial and will resolve, and after a false start they will work themselves out, and there will probably be 40, or 10 percent, that will still remain in the controversial category. The way they come in is very difficult for us, too, Senator Murkowski, because very often people in good faith are trying to follow the law and get the permit before the summer construction season, and they will ask questions if it is for a 404 permit about whether they are in a wetland or not when everything is frozen solid, and it is a very difficult determination to make at that time; or they will ask the question—or they will apply so late that we cannot meet some contractual date or whatever they have unless we make an extraordinary effort such as has been suggested where everybody goes to the site.

I do have an intention of placing somebody on my staff here in Juneau. I'm going to have to do that because of the interest down here—I think that will assist and perhaps by having somebody here, we will be able to then put together a team to go out and look at the site.

Perhaps we can get one agency—sometimes you can get one Federal agency to have their biologist look into certain things for another agency, so I don't think it is totally insurmountable, but it is a very difficult coordination effort.

Senator **Murkowski**. Oftentimes each agency wants to maintain their independence and that is understandable. But in the case of the log dump at Hobart Bay, as an example, it would certainly expedite it if the four or five agencies involved could at least interact at the time they make a physical inspection so that someone who might suggest, "Well, is this area going to be heavily utilized by trollers?" can counter that by local knowledge, rather than this. I think that is what we are talking about, Mr. Chairman, as far as a corrdinating effort, and this isn't that Federal agencies are invovled in corps permits by any means, this is a problem of the Federal Government today, the interaction with other agencies and how can we make government a little more responsive and a little more efficient and I think that this has been a problem that has been before us for a long time but we are relating to it now.

Senator **Abdnor**. Very timely.

Senator **Murkowski**. What we are doing, we are really examining ways to still provide the safeguards necessary for the responsibility of the various agencies, but to see if the whole procedure can't be expedited.

On the 17th in Anchorage we are holding a water power hearing. We are going to have representatives from a number of agencies: Alaska Power Authority, FERC, and others; and the concept is to see if we can't begin to submit field work, Mr. Chairman, when it is complete to the licensing agency for examination during this time period that must take place, but having something actually taking place to cut down the time. As I understand the procedure, it is a matter of meeting all the requirements and then submitting the entire package for examination to the licensing agency, which theoretically doubled the time. The same application may be appropriate in the case of corps permits, although it seems our problem here is the interaction with the other government agencies and how we can relate to it. I want to assure you, Mr. Chairman, and the witnesses, that it is not my intent to circumvent the safeguards built into the system by any means, but I think we can expedite the process because it just has gotten to be too extreme with regard to the time sequence and the associated cost.

What we are seeing, not only in Alaska, but all over the country is just the large corporations that have the financial capability to outwait government. They can be responsive to many of the regulations and the time frames that are established.

I think this is the framework that, through the committee hearings that are going to be held throughout the country, that we hope to relate to.

Colonel, I certainly appreciate your cooperation and the effort of your department. You certainly have a magnificent opportunity in this great State. You are involved in every phase of Alaska's resource development.

Colonel NUNN. Yes, sir. I'm certainly very pleased to be here. I would say this is the finest assignment I have every had in 22 years of Army experience. I have really come to appreciate the various problems of not only the foresters, but the fishermen, the people that need small boat harbors, the people that are trying to carry this development forward in the midst of one of the greatest collections of wetlands, and being an engineer and part of an organization with that word in its title, you are very often considered to be prodevelopment in your orientation, and I have been very pleased to have been able to participate up here and make progress because there are enormously important environmental issues going on at the same time there is enormously important development and I think, I would say, that after having read a good bit about Alaska before I came, I was really pleased to see how people are working together up here, and I think these issues can be resolved. There may have to be some legislative adjustments and I think that we can make some administrative adjustments to expedite the processing. We are, in fact, trying to do that. I didn't dwell on that in the 404 remarks I made earlier.

There are in-house procedures, but we have drastically reduced the number of controversial permits that are being worked on within my district right now. We haven't made the same degree of progress on processing time for a routine permit. However, I think the corporation between the State of Alaska and the corps is going to ultimately result in reduction in that area, too; and as I did mention earlier, the general permits are going to further shorten that.

I might say that I'm always open to any applicant calling me or talking to me about concern over what he construes to be an objection that has no merit or something that I need to send somebody down to have a personal look at it. We will do that. I think mistakes are made and certainly we make them and other people do, too, and if any applicant or any local interest—certainly if the mayor calls me or something, we turn to very quickly—but any individual applicant that has a problem will contract us, we will look into the objections and we will try to determine whether they have any merit.

Now, I will say, in defense of the Federal agencies up here, when I bring it to their attention that their objections don't have much merit and they aren't going to look too well when it gets to Washington, usually those objections are not maintained. They do not suggest referral and Washington will never see those objections. I know that they know that and we come to a decision.

Unfortunately, it is not as fast as it should be, but I will say that with the reduced number of controversial permits, I feel very good with how we are moving ahead, considering the magnitude of some of the things that we do up here.

I think for everybody's benefit, it would be my judgment and assessment that we do a lot more with regard to development here in Alaska, with a lot less administrative delay and forms of environmental impact statements and other assessments that would hold up projects elsewhere. I think big projects move quite well in Alaska. I think it is unfortunate that when somebody hasn't taken into account the Federal statutes and laws and is already under contract and has a problem, I think it is very unfortunate. However, we must try to balance our application of the law and we do try to do that.

Senator **MURKOWSKI**. I would certainly concur with that. I think the release that came out of Washington the day before yesterday from FERC on the go-ahead on the Tyee project, points out what we are attempting to achieve here. Originally that was thought not to be able to be released, I believe, until October or thereabouts which would have meant the loss of a construction year; but they saw fit after reasonable requests were made, to attempt to move that project out and it is out and that is another 20,000 kilowatts, which is certainly significant in the Wrangell-Petersburg area, which certainly points out that Government can move and still maintain those safeguards that we all feel are mandatory.

Senator **ABDNOR**. You did say, didn't you, earlier that you didn't have to send any of your applications on up to Washington on the 404?

Colonel **NUNN**. Yes, sir, Mr. Chairman. I think the case that they made reference to in the section 10 was something that preceded my assignment there, but that is a process that we could use. I could use it just as well. If I feel that the permit should be issued and the agency is steadfast in its objection and feels that the environmental impact is truly unacceptable, then I would refer it down to my division headquarters in Portland and if they could not get a resolution between the brigadier general that is my boss and the regional director, then it would go forward to Washington.

That has not had to be done in the past 2 years. It is the mechanism and it is slow. It is time consuming. I don't think it should take 5 years, but it is a difficult mechanism to go through.

Senator **ABDNOR**. Let me say, Colonel, I have been impressed this afternoon. I think communication is a great thing and obviously you use it, and I'm sure that helps immensely sometimes.

Colonel **NUNN**. Thank you very much, Mr. Chairman.

Senator **ABDNOR**. Thank you. I believe that concludes our hearing, and as a matter of fact, someone wants this room; do they not?

Mr. **DEVORE**. We are over schedule.

Senator **ABDNOR**. We appreciate this opportunity to hear from the witnesses. It has been very beneficial and useful for us. What was said here today will be made a part of the record and if someone wants to have a copy, in time we will have it put together. It usually takes a couple of months.

Senator MURKOWSKI. Mr. Chairman, I assure you I will read what I missed.

Senator ABDNOR. Thank you and the meeting is adjourned. The record will be kept open for 2 weeks. If anyone would like to submit a written statement to the committee, we'd be more than happy. You can send it to me in care of the Environment and Public Works Committee. I'll get it in Washington. Thank you very much.

[Whereupon the hearing was adjourned to reconvene at the call of the Chair.]

[Statements supplied for the record follow:]

PREPARED STATEMENT OF ROBERT J. CROSS, ADMINISTRATOR, DEPARTMENT OF ENERGY, ALASKA POWER ADMINISTRATION

Mr. Chairman:

I am Bob Cross, Administrator of the Alaska Power Administration, Department of Energy. It is a pleasure to respond to the Committee's request for information on the Snettisham hydroelectric project which is one of the very important accomplishments of the Corps of Engineers' civil works programs in Alaska.

The Snettisham Project was authorized in the 1962 Flood Control Act for design and construction by the Corps of Engineers with operation, maintenance, and power marketing assigned to Interior Department through the Alaska Power Administration. The O&M and marketing functions along with the power administration became part of the Department of Energy in 1977.

Project Description

The project was planned, authorized, and designed as a staged project to meet long-term power requirements for the Juneau area. The first, or Long Lake stage has been operational since 1973. It consists of a low dam at Long Lake, the power tunnel, underground powerplant with rated capacity of 47,160 kW, and a 45-mile transmission line to Juneau. The present firm energy capability--the amount that can be produced in a critical water year--is estimated at 168 million kilowatt-hours.

The original project plan assumed future stages at the Crater Lake unit and at a larger dam at Long Lake. Crater Lake would add one generating unit with 27,000 kilowatts and new firm energy capability of 106 million kilowatt-hours. The Long Lake dam would increase storage capability and provide an additional 57 million kilowatt-hours of firm energy. No final decisions have been made about whether it is appropriate to fund either of these stages in FY 1983.

Operating Experience

During early years of operation, we encountered serious problems with the transmission line. In all other respects, I'm pleased to report that Snettisham has performed in excellent fashion.

The initial line routing crossed Salisbury Ridge, south of Juneau, an environment that proved to be extremely harsh. Relocation of this line segment to a lower elevation was authorized in the 1976 Water Resources Development Act and completed by the Corps in September 1976.

A second problem involved loss of a tower to snow avalanche in April 1976. This caused approximately a three-week outage while APA crews reconstructed the tower. We have a contract underway now which will accomplish tower relocation and provide stronger tower bases in the immediate area of the avalanche hazard, thus reducing the risk to future avalanche damages.

Overall, the performance of the transmission line has been very good since completion of the relocation, with Snettisham power physically available to Juneau over 99.5 percent of the time since September 1976.

The Snettisham design provides for project operations by supervisory control from the substation at Thane, four miles south of Juneau. APA staff assigned at the Project provide maintenance of all facilities and can operate the project in event of problems with the supervisory control. Several of the utility-owned powerplants are also operated by supervisory control from the substation. This has proven to be an efficient and cost effective method of system dispatch and operations.

Post-construction reviews by the Fish and Wildlife Service did not find any major impacts on fish and wildlife.

The largest unanticipated project result is the State's new Snettisham fish hatchery, the initial phase of which was completed in late 1980. The power project provides a high quality water supply at nearly constant temperatures which is most useful in salmon production.

Power Use

We prepared a review of power production and use from Snettisham so as to compare performance with the expectations at the time of authorization in 1962.

We found that the original estimates of power requirements were a little on the high side. The 1980 figures for actual peak demand and energy use were 83 and 81 percent respectively in the 1961 forecast for 1980. Stated another way, actual demands are about two years behind the original forecasts.

Probably the most important factor not anticipated at the time of project authorization was the huge increase in energy values of recent years. One result is extended operating life for the several small hydroelectric projects owned by the Alaska Electric Light and Power Company. These smaller plants--Salmon Creek, Annex Creek, and Gold Creek--have been in operation since 1915. At the time of the Snettisham authorization, it was expected that high operating costs would force retirement of the older plants when Snettisham power became available.

The changing economics of energy plus utility programs to modernize and automate will keep the older plants in service for the foreseeable future. In FY 1980 they produced 49 million kilowatt-hours or 34 percent of area requirements. These plants also provide an important part of the reserve in case of outage on the Snettisham line.

We're also seeing important changes in the patterns of energy use. High oil prices have made electric heat attractive to many consumers. Our studies show electricity is becoming a larger share of the total area energy use and that significant amounts of oil are being saved as a result. There is also good evidence that overall efficiency of energy use in the area is increasing.

Because of these changes, we find that the Snettisham Project will meet area requirements for a longer period than originally expected, and the value of the power to the consumers is much higher than expected at the time of authorization. The project is helping to hold down consumer energy costs and producing substantial savings in oil.

Juneau Area Power Requirements

Comparisons of Forecast and Actual

1. Forecast at time of project authorization.[1/]

	KW	KWH x 1000
Base year, 1960	6,710	32,800
Forecast, 1980	38,820	187,000
Forecast as % of 1960	580	570

2. Forecast accuracy.

	KW	KWH x 1000
Actual use, 1980	32,200	151,039
Actual as % of forecast	83	81
Forecast error, %	17	19
Actual 1980 as % of 1960	480	460

Note: Data is net generation on a calendar year basis.

[1/] Reappraisal of the Crater-Long Lakes Division, Snettisham Project, Alaska U.S. Bureau of Reclamation, November 1961.

Sources of Power Supply for Juneau

units: 1000 kWh, net generation

	APA	AEL&P		Total
	Snettisham Project	Small Hydro	Diesel Standby	
FY 1977	69,575	43,721	1,889	115,185
%	60	38	2	100
FY 1978	78,356	42,890	5,462	126,754
%	62	34	4	100
FY 1979	82,331	47,590	8,952	138,873
%	59	35	6	100
FY 1980	94,570	49,065	1,516	145,151
%	65	34	1	100
FY 1981 (first nine months only)				
	88,978	37,303	585	126,867[1]
%	70	29	--	100

Note: Totals may reflect minor errors due to rounding.

[1] Reflects an increase of 14 percent over FY 1980 amounts.

Snettisham Project

Energy Sales and Revenues

Fiscal Year	Energy Sales 1000 KWH	Revenues $
1974	5,662	88,362
1975	14,588	220,997
1976	46,833	727,512
1976 TQ[1]	9,295	145,012
1977	67,134	1,043,313
1978	75,029	1,165,880
1979	80,452	1,251,609
1980	90,753	1,421,088
1974-1980	389,746	$6,063,773
1981 (first 9 months)	85,546[2]	1,335,570

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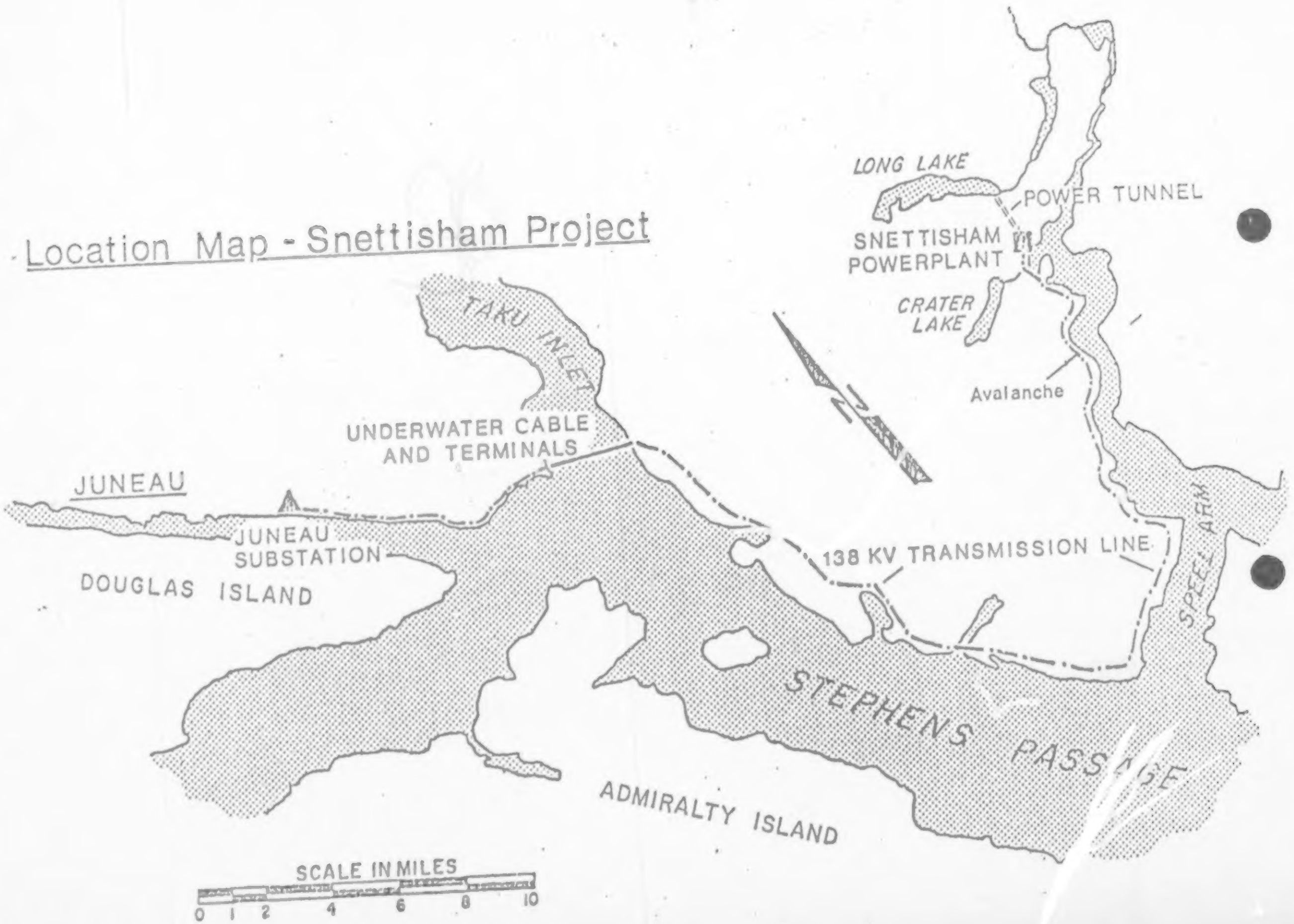
[1] Transition Quarter.

[2] Reflects a 19 percent increase over FY 1980 amounts.

Location Map - Snettisham Project


LONG LAKE
POWER TUNNEL
SNETTISHAM POWERPLANT
CRATER LAKE
Avalanche
TAKU INLET
UNDERWATER CABLE AND TERMINALS
JUNEAU
JUNEAU SUBSTATION
DOUGLAS ISLAND
138 KV TRANSMISSION LINE
SPEEL ARM
STEPHENS PASSAGE
ADMIRALTY ISLAND
SCALE IN MILES
0
1
2
4
6
8
10

Prepared Statement of Eric P. Yould, Executive Director, Alaska Power Authority, State of Alaska

ALASKA POWER AUTHORITY

My name is Eric Yould, I am the Executive Director of the Alaska Power Authority. Prior to assuming this position three years ago, I was employed as Chief of the Hydrologic Engineering Section for the Alaska District Corps of Engineers. Within this latter capacity, I was involved with a number of hydropower projects that the Corps of Engineers was studying. In my capacity with the Alaska Power Authority, I am the Chief Executive Officer in charge of an energy development program consisting primarily of hydropower projects. In order to give you an understanding of the magnitude of the program, the Legislature, this year, appropriated in excess of $500 million to the Alaska Power Authority in order to initiate construction of a number of projects and made a committment of $4.5 billion dollars for future projects which when developed will provide electrical energy to over 90% of the State's population.

My testimony today will address only the Corps' hydropower development program in the State of Alaska. In general, I will touch upon: (1) the Corps of Engineers planning and development process; and (2) the interface between the Corps of Engineers and the Alaska Power Authority, both in general and as it relates to the Bradley Lake Hydropower project and the Snettisham Hydropower project.

The Corps planning process is a lenthy one. It starts out with a congressional authorization for study funds. After the funds are appropriated, the District Engineer initiates the study with public meetings. After the public meetings to identify and discuss local problems and alternatives, the District then conducts what it calls a stage 1 reconnaissance level study. In the event an alternative appears to be economically feasible and environmentally acceptable, then the District conducts what it calls a stage 2 study and distributes this report to the general public. After public input, the District then conducts what it calls a stage 3 study consisting of engineering, environmental, economic, and social evaluation of alternatives, and a tentative plan is selected. The District Engineer then forwards his draft feasibility report and draft environmental impact statement to state agencies and the public for their review. Late stage public meetings are conducted and the tentatively proposed plan is discussed. State agencies and the public are then allowed to respond to the draft feasibility report and EIS. The District then reviews comments, prepares a final feasibility report including the EIS and forwards it to the Division. The Division Engineer reviews the report, modifies it if appropriate, forwards it to the Board of Engineers for Rivers and Harbors and issues a public notice. The Board of Engineers for Rivers and Harbors reviews the report, considers views of public and State agencies and so forth, modifies it if appropriate, and forwards the report to the Chief of Engineers with the Board's recommendation. The Chief of Engineers reviews the report, prepares his draft recommendations, and distributes the report for departmental review, all to be conducted within a 90-day period of time. The Chief of Engineers then reviews the comments received and modifies the report as appropriate. The Chief of Engineers then forwards the recommendations to the Secretary of Army for consideration. The Secretary of Army reviews the report, obtains the Water Resource Council review, obtains the Office of Management & Budget views, prepares his recommendations and transmits the report to Congress. If Congress happens to have an omnibus water resources bill in the particular year that the report is transmitted to Congress, the project is then considered with a list of other projects for authorization.

At this point, the project is merely authorized and has no funding for construction. Construction funding generally must await an Office of Budget & Management submittal to Congress. Assuming that Congress passes the bill and the President signs it, the District then conducts advanced engineering and design studies, followed by the phase 1 general design memorandum, the phase 2 general design memorandum, feature design memoranda, and plans and specifications. At this point, the Corps of Engineers is in a position to actually start construction of the project. That the preconstruction process is lengthy is obvious.

An example is the Southeastern Hydropower study being conducted presently by the Alaska District Corps of Engineers. This study was initiated in 1974 with a first phase being the analysis of hydropower potential in the Ketchikan area. Three projects were identified; Mahoney Lake, Swan Lake and Lake Grace. Here it is 1981 and the report has not even been transmitted to the Division Engineer. During this period of time, the local community, with assistance from the Power Authority, initiated their own hydropower assessment for Ketchikan through a private consultant, conducted all of the field work necessary for a license to construct from the Federal Energy Regulatory Commission, received their license and has initiated construction of the $100 million Swan Lake Hydropower Project. Meanwhile, the Corps has not even completed their detailed feasibility analysis. My point is, obviously, that the Corps process precludes their being a viable service to local governments. Similar Corps studies are ongoing for the communities of Valdez and Cordova.

The funding process used by the Federal Government for Corps of Engineers projects is very bit is inefficient as the Corps' planning process. Funds are distributed on an annual basis in accordance with perceived Corps of Engineers need or capability rather than being made available at the start of construction, which would allow the Corps to bid larger portions of the job. Thus, contractors, with the assurance that they would have funding from one year to the next, would be more efficient in actually bidding the project. The end result would be a cheaper project and one constructed in a more efficient and timely manner. This process would also assist the Corps of Engineers in their own long range planning, in that they would not have to plan from one year to the next, but rather in accordance with the optimum construction sequence.

As a result of this strained planning and construction process, the State of Alaska has taken certain steps to expedite two ongoing hydropower projects that have been under the purview of the Corps of Engineers. In addition, the Power Authority has attempted to provide timely funding, outside of the federal appropriation process, to insure that priority projects of the Authority presently being studied by the Corps of Engineers proceed smoothly. The two projects are the Bradley Lake hydropower project which will provide power to the Homer-Kenai area, and the second phase of the Snettisham hydroelectric project which would serve the Juneau area.

The Bradley Lake hydropower project was authorized for construction in 1961. The project would consist of a 135 megawatt power plant at a cost of roughly $215 million in 1981 dollars. The Corps of Engineers is presently funded to complete the phase 1 general design memorandum for the project. During the session just completed, the Alaska State Legislature, as part of a comprehensive energy program for Alaska, established a policy toward the Bradley Lake Project, which would basically include it as a State funded development. The Legislature passed a resolution requesting that the Federal Government, through the Corps of Engineers, accept funds from the State of Alaska for construction of the Bradley Lake Project. In order to initiate the process, State of Alaska appropriated $15 million and indicated that the balance of the funding for the completion of the project would be forthcoming. Further, it was the desire of the State that, once completed, ownership and operation of the project be turned over to the Alaska Power Authority. Senate Joint Resolution 32 establishing this position is attached to my testimony. Mr. Chairman, the authority for the Corps of Engineers to accept contributed funds is contained in Section 5 of the Flood Control Act of June 22, 1936, as amended. The Alaska Power Authority believes that this proposal is in accordance with the National Policy of energy independence and may permit construction of the Bradley Lake Project at a time when Federal expenditures may be reduced. The energy that will be produced by the Bradley Lake Project is urgently needed in the State of Alaska. We do not intend that this request set a precedent for future water resource development in the State of Alaska; rather we have an immediate need for the power which Bradley Lake could produce and, hence, find ourselves in a unique circumstance of being able to advance a proposal that compliments both State and Federal priorities.

Mr. Chairman, I would very much like to work with you and your committee to ensure appropriate legislation is passed by Congress to ensure that the Corps of Engineers may indeed accept funds from the State of Alaska for the construction of the Bradley Lake Project and further that language be incorporated that would turn ownership and operation of the project over to the State upon its completion.

The second federal project on which the State Legislature has taken a policy position is the Snettisham Hydropower Project. The Snettisham Project is presently a 47 megawatt project that uses water from Long Lake to produce power that is transmitted some twenty five miles to the community of Juneau. Stage 2 of the Snettisham project, which the Corps of Engineers is authorized to construct, would consist of developing a second lake known as Crater Lake to bring power through the existing power plant and thus increase its capacity by one-third. The cost of the second phase in today's dollars is roughly $50 million. The Alaska Power Administration, the Federal marketing agency, has indicated a need for the second stage by about 1987. The Corps of Engineers has completed the majority of the design for this project. Mr. Chairman, in an effort to insure that the project proceeds in a timely manner, the Alaska State Legislature passed a resolution requesting that the Federal Government provide funding for this much needed project. A copy of that resolution is attached. In addition, in recognition of national policy on cost sharing, the State of Alaska appropriated $4.5 million as its contributed share of this $50 million project.

To summarize, Mr. Chairman, the State of Alaska in recognition of the very slow federal planning and construction process, but the great need for stable priced power for Alaska's future, has embarked upon a hydropower development program which by the mid-1990's will see 90% of its population receiving the benefits of the renewable resource. This is in sharp contrast to the present situation in which 9% of our electrical energy is provided by hydropower with the rest coming from oil, gas, and coal. Both Bradley Lake and Phase 2 of Snettisham can contribute to the goals and objectives of the State of Alaska. It is our intent and desire to see the construction of both of these worthy projects initiated during 1982. However, in order to do so, Congressional action will be necessary. Snettisham, an already authorized Federal project, will need an appropriation to initiate construction. Bradley Lake will require authorization from Congress for the Corps to accept funds from the Alaska Power Authority and further language which would convey the project to the Power Authority upon construction completion.

Mr. Chairman, I appreciate the opportunity to come before your Subcommittee today. The Alaska Power Authority and the Corps of Engineers have long coordinated their programs and both have mutual objectives of helping to solve Alaska's energy problems. Through oil alone, the State of Alaska provides roughly 15% of the nation's needs. Given the tremendous additional reserves of oil, gas, coal, geothermal, peat, wind, and additional hydropower, the State's potential future contribution is obvious. However, in order to be able to provide such resources, Alaska's own infrastructure must first be developed. Realizing Alaska's strategic value, the actions I have suggested would be prudent investments in our nation's future.

Attachments; 2 resolutions

Original sponsor: Gilman

Offered: 5/14/81
Referred: Rules

IN THE SENATE

BY THE RESOURCES COMMITTEE

RECEIVED
MAY 18 1981
ALASKA POWER AUTHORITY

CS FOR SENATE JOINT RESOLUTION NO. 37 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - FIRST SESSION

Relating to construction of the Bradley Lake hydroelectric project.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the United States Army Corps of Engineers is completing the design and specifications on the Bradley Lake hydroelectric project; and

WHEREAS the United States Congress has authorized construction of the Bradley Lake hydroelectric project; and

WHEREAS the Alaska Power Authority would like work to begin on the Bradley Lake hydroelectric project as early as possible; and

WHEREAS the Bradley Lake hydroelectric project is an economically, environmentally, and technically feasible renewable energy project which should be constructed as early as possible;

BE IT RESOLVED that the Alaska State Legislature respectfully requests that the United States Congress provide for a system to permit the United States Army Corps of Engineers to design and construct the Bradley Lake hydroelectric project as a project of the Alaska Power Authority provided that the financial responsibility for this project shall solely be the responsibility of the State of Alaska and the Alaska Power Authority.

COPIES of this resolution shall be sent to the Honorable Strom Thurmond, President Pro Tempore of the U.S. Senate; the Honorable Thomas P. O'Neill, Jr., Speaker of the U.S. House of Representatives; the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress, to Colonel Lee Nunn, Chief of Alaska District, United States Army Corps of Engineers; to Mr. John Katz, Special Counsel to the Governor; and to Mr. Eric Yould, Executive Director, Alaska Power Authority.

Original sponsor: Ray

Offered: 5/20/81
Referred: Rules

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE JOINT RESOLUTION NO. 45 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWELFTH LEGISLATURE - FIRST SESSION

Relating to construction of the Crater Lake stage of the Snettisham hydroelectric project.

BE IT RESOLVED BY THE LEGISLATURE OF THE STATE OF ALASKA:

WHEREAS the United States Department of Energy, Alaska Power Administration, recommended that the United States Army Corps of Engineers proceed with the Crater Lake stage of the Snettisham hydroelectric project; and

WHEREAS the Crater Lake stage was authorized by the United States Congress through the Flood Control Act of 1962; and

WHEREAS the Crater Lake stage is an economically, environmentally, and technically feasible renewable energy project which should be constructed as soon as possible; and

WHEREAS appropriations in the amount of $4,400,000 are needed during fiscal year 1982 in order for the project to proceed in timely fashion; and

WHEREAS the completion of the Crater Lake stage will provide a source of renewable energy for the municipality of Hoonah utilizing a planned transmission line, including an equal energy load for a substantial mining operation en route;

BE IT RESOLVED that the Alaska State Legislature respectfully requests the United States Congress to appropriate to the Army Corps of Engineers the money necessary for construction to begin during fiscal year 1982 on the Crater Lake stage of the Snettisham hydroelectric project.

COPIES of this resolution shall be sent to the Honorable Strom Thurmond, President Pro Tempore of the U.S. Senate; the Honorable Thomas P. O'Neill, Jr., Speaker of the U.S. House of Representatives; the Honorable Mark O. Hatfield, Chairman of the Senate Appropriations Committee; the Honorable Jamie L. Whitten, Chairman of the House Appropriations Committee; the Honorable Ted Stevens and the Honorable Frank Murkowski, U.S. Senators, and the Honorable Don Young, U.S. Representative, members of the Alaska delegation in Congress; and to Colonel Lee Nunn, Chief of Alaska District, United States Army Corps of Engineers; Mr. John Katz, Special Counsel to the Governor; and Mr. Eric Yould, Executive Director, Alaska Power Authority.

PREPARED STATEMENT OF COLONEL LEE NUNN, DISTRICT ENGINEER, ALASKA DISTRICT, CORPS OF ENGINEERS

7 August 1981

GASTINEAU CHANNEL IMPROVEMENT EVALUATION

On August 3, 1959, the committee on public works of the United States Senate, authorized a study to review House Document 325, 77th Congress on the Gastineau Channel improvement project.

On 2 March 1945 Congress authorized a project to improve the channel from Juneau to Fritz Cove, approximately 4.5 miles long and 75 feet wide with a bottom elevation of 0 feet mllw. Dredging of the channel commenced August 1959 and was completed in July 1960. Serious shoaling occurred in the channel soon after completion, particularly at the mouths of Jordan, Sweitzer and Lemon Creeks. Field studies were made in 1962 and 1963 and a model study was conducted from October 1964 through May 1967. Results of these studies indicated shoaling would continue to be a major problem with any channel improvement project.

A feasibility report on further improvements to Gastineau Channel completed November 1977, indicated the best alternative would be a 4.5 mile, 100 foot wide channel with a project depth of +2 feet mllw and a 17,250 foot long dike with a top elevation of +25 feet mllw and a top width of 12 feet. First costs for this alternatve were $11,189,000 with annual costs of $853,000 compared to annual benefits of $479,000. The report concluded the proposed project was not economically justified since only 56 cents in benefits could be obtained for each dollar of project cost. A review of the 1977 report's economic analysis was completed in 1978 and also concluded the proposed project was not economically justifiable due to the high cost of maintenance dredging.

The cost to maintain the project authorized by Congress in 1945 was also reviewed. This included dredging of the existing channel alignment at the original depth of mllw with a bottom width of 75 feet. Channel side slopes would be flattened to 1 on 10 rather than 1 on 3 to forestall major side sloughing which followed the dredging in 1959 and 1960.

The estimated annual cost was $762,000 compared to annual benefits of $484,000 yielding only 63 cents of benefits for each dollar of cost. Also, this project would not meet the criterion of permanence as established by the committee on Tidal Hydraulics. Furthermore the channel would be of insufficient width to satisfy U.S. Coast Guard navigation standards for two-way traffic. The findings of this study were furnished to Congress by the Secretary of the Army.

7 August 1981

SNETTISHAM HYDROELECTRIC PROJECT

In 1962 Congress authorized construction of the Snettisham Hydroelectric Project. Department of The Interior Order No. 2900 shifted operating authority from the Bureau of Reclamation to the Alaska Power Administration (APA). Construction of the first (Long Lake) phase began during 1967 and brought two turbines rated at 23,580 kilowatts each on line in 1974.

The Long Lake phase met the immediate electrical requirements of the Juneau power market. Price increases for fuel oil, the principal domestic and commercial heating fuel in Juneau, have made electric heat pumps the preferred alternative for new and replacement heating installations. APA predicts that with normal expected growth and increased demand for electrical heating, the generating capacity of the existing Snettisham Project could be fully utilized and curtailment of new electric heating installations could be required as early as 1983. APA, acting on the basis of their projections, has requested that the Corps of Engineers proceed with the second (Crater Lake) phase of the project to bring an additional 27,000 kilowatts of capacity on line.

Development of the Crater Lake phase would require the construction of a 7,820-foot power tunnel and penstock, approximately 1 mile of additional project roads, and the installation of a 27,000 kilowatt turbine in the existing powerhouse. Existing housing, access facilities, transmission lines, and the powerhouse were designed and constructed to accept the additional generating capacity without substantial alterations.

An EIS supplement was prepared for the Crater Lake phase. The final was filed with U.S. EPA in April 1981. The comment period closed without any substantial objections being received.

The Crater Lake phase is the most viable source of new hydropower capacity available to the Juneau market and could be developed sooner than any other hydropower project of its size. Because much of the project infrastructure is already constructed, it would be the least expensive and the most environmentally acceptable power that could be added to the system.

As soon as funds are available we will prepare plans and specificatons and advertise for bids. On 14 July 1981, the House Appropriation Committee added $2,000,000 to resume construction of the Snettisham Project in fiscal year 1982.

7 August 1981

BRADLEY LAKE HYDROELECTRIC PROJECT

Congress authorized construction of the Bradley Lake Hydroelectric Project in 1962 in accordance with the recommendations of the Chief of Engineers in House Document No. 455, 87th Congress.

Following authorization, introduction of low-cost, gas-fired thermal generation resulted review of project. Congress authorized funds in 1968 to re-evaluate the project as a source of peaking power. The Reanalysis Report issued by the District in 1978 recommended Congress provide funds for advance engineering and design of the project with an initial capacity of 70 megawatts and an ultimate capacity of 118 megawatts. Project cost was estimated at that time at $170 million. Work is nearly complete on the general design memorandum and that document is scheduled to be published in October 1981.

The recommended plan will include a concrete gravity dam, diversion by lake tap into a concrete lined power tunnel, an above ground powerhouse near sea level with initial capacity of 135 megawatts and an 18 mile overhead transmission line connecting with the Homer Electric Association network. Power-on-line is scheduled for October 1988.

The project would produce 314 million kilowatt-hours of energy using three 45 megawatt turbines under a maximum head of 1161.5 feet. The concrete dam would be 130 feet high and the power tunnel would be 16,800 feet long. Estimated construction cost is $295 million.

The Corps of Engineers is coordinating with the Alaska Power Authority regarding State participation in funding of this project. Construction is scheduled to begin in December 1982.

ALASKA ELECTRIC LIGHT AND POWER CO.

134 N. FRANKLIN STREET
JUNEAU, ALASKA 99801

(907) 586-2222

August 5, 1981

Subcommittee on Water Resources
Committee on Environment and Public Works
United States Senate
Washington D.C.

Gentlemen:

The Alaska Electric Light and Power Company (AELP) is the electric utility which serves a majority of the electric users of the City and Borough of Juneau and is the largest customer of the Snettisham Hydroelectric Project.

Since Snettisham first came on line in 1973 AELP has received a 20% rate increase in early 1976 and in late 1981 may receive up to a 17½% increase. Compared to the magnitude of rate increases received by other Alaskan utilities during this same time frame the AELP record is very favorable. The primary reason for this is Juneau's inexpensive energy source - the Snettisham Hydroelectric Project.

On September 12, 1980 the Alaska Power Administration submitted its final report for the Juneau Area Power Market Analysis to the U. S. Army Corps of Engineers. AELP provided input during the preparation of the report, agrees with its findings and supports its recommendations. AELP urges that monies be made available so that the Corps of Engineers can proceed with actions to construct the Crater Lake Addition to Snettisham in order to be available by 1986-1987.

Very truly yours,

William A. Corbus

William A. Corbus
Manager

WAC/ak

TESTIMONY OF ALASKA LOGGERS ASSOCIATION BEFORE THE WATER RESOURCES SUBCOMMITTEE OF THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

The Alaska Loggers Association (ALA) would like to compliment you Senator Murkowski and Senator Abdnor for coming to Alaska to hold oversight hearings regarding the Corps of Engineers and the manner in which its operations work in Alaska. We are always delighted, Senator Abdnor, to have visitors from the lower 48 come to Alaska since this provides a greater appreciation of the different operating conditions up here. We thank you for taking time away from your State of South Dakota to learn of these problems. We appreciate the sacrifice that this represents to you personally.

As a general matter, we are very pleased with the relationship we have developed with the Corps of Engineers in Alaska. Colonel Nunn is an outstanding leader who has worked diligently to make certain that the Corps of Engineers fulfills its regulatory function under Section 10 of the River & Harbor Act of 1899 as Congress intended. We have nothing but the highest praise for his department and for him. The problems which we will discuss with you today arise from what we believe is regulatory language which slows down the decision making process.

Until 1968, the Corps administered the 1899 Act's regulatory program only to protect navigation and the navigable capacity of the Nation's water. The permit requirements of the Act were limited in their application to waters that were presently used as highways for the transportation of interstate or foreign commerce. On December 18, 1968, the Department of Army revised its policy with respect to the review of permit applications under Sections 9 and 10 of the 1899 Act. It published in the Federal Register a list of additional factors besides navigation that would be considered in the review of these applications. These included: fish and wildlife; conservation; pollution, aesthetics; ecology and the general public interest.

This public interest review was adopted in response to a growing national concern for environmental values as they related to our nation's water resources and in response to related federal legislation such as the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) that required the consideration of some of these concerns in federal decision making. Enactment of the National Environmental Policy Act on January 1, 1970 (42 U.S.C. 4331 et. seq.) gave further support to this change in policy.

The public interest review received its first judicial test in the case of Zabel v. Tabb 430 F.2d 199 (5th Cir. 1970) in which the court upheld the denial by the Corps of a landfill permit for fish and wildlife reasons instead of reasons relating to navigation. In reaching this decision, the court reaffirmed to the Department of Army that it was "acting under the Congressional mandate to collaborate and consider all of these factors" when it reached that decision.

The ALA's members become involved with Corps permits with respect to log transfer facilities and log storage areas. Under the relevant regulations promulgated in accordance with the Corps' new policy, the Fish and Wildlife Coordinating Act, and the Zabel case, the Corps must now refer permits for log transfer facilities and log storage areas in Alaska to the National Marine Fisheries Service, the Fish and Wildlife Service and the State Coastal Zone Agency which in turn forwards the application to the State Department of Natural Resources, the Department of Environmental Conservation and the Department of Fish & Game. Usually the Department of Environmental Conservation will receive a copy of the permit independently by virtue of the requirement under Section 401 of the Federal Water Pollution Control Act that it certify that the water quality of the State will not be impacted by the issuance of the permit.

The Alaska Loggers Association agrees that these agencies have an important role in the issuance of these permits and has no quarrel with the procedure up to this point. The difficulty is that the decision making process is brought to its knees if any of the agencies involved desires that the permit not be issued. The Corps is not permitted to make a substantive decision as to the merits of the objection by the objecting agency. All it can do is tell the applicant to continue to seek consensus with the objecting agency.

This problem is a result of the language in 33 CFR § 325.8(b) which states as follows:

> "Unless otherwise precluded by this regulation, district engineers may issue permits over an unresolved objection of another federal agency if that agency indicates to the district engineer that it does not desire to refer the application to a higher level of authority for review."

What this means is that if a federal agency objects, the district engineer cannot issue the Corps permit unless the objecting agency comes forward and affirmatively says it does not intend to take its objection further. It does not matter that the objection of the other federal agency is arbitrary or frivolous. The district engineer can simply not issue the Corps permit. Furthermore, the next superior officer to the district engineer, the division engineer, cannot issue the Corps permit either. The same procedure is in force at this level as well. Indeed, Subsection (d) requires that any such unresolved permits must ultimately go to the Chief of the Corps of Engineers for resolution.

This means that all disputes must be resolved in Washington, D. C. in one of the most time consuming and aggravating procedures known to man. I recall personally being involved with such a dispute which went all the way to the Secretary of the Army and took five years to resolve. Recently I was on a field trip, representing Alaska Lumber & Pulp Co., Inc. which was applying for a Corps permit for a log transfer facility. The proposed log transfer facility was not a rafting ground for logs, but instead a barging facility. In other words, the logs were not to be transferred into the water but were to be placed directly into the barge. The National Marine Fisheries objected on the grounds that since fishermen traditionally associated log transfer facilities with rafting grounds, they would perceive the issuance of this permit to be for a rafting facility even though, in fact, it was for a barge facility. In short, the

National Marine Fisheries Representative found it easier to object to the permit than to explain to the fishermen that their perception was incorrect and that indeed this would be a barging rather than rafting facility. In the face of such an objection, the district engineer is not allowed under the regulation to overrule the National Marine Fisheries' objection.

The probelm is that there is no accountability for such an objection at this point in the process. We have to go through the administrative process without an initial decision all the way to the Secretary of Army. We cannot sue on the grounds that the decision is arbitrary because: (1) there is at that point no decision; (2) we still have to exhaust our administrative remedies; and (3) the delay is not due to the Corps in any event. Therefore, an agency can hold up or break a project for the most arbitrary of reasons by failing to agree at the district engineer level.

We believe that the district engineer should have the authority to overrule nonmeritorious objections in the same way that other federal agencies have authority to overrule objections of agencies to their actions by the Forest Service. That is to say, if the district engineer makes the decision to issue a permit, an objecting agency should simply have the authority to appeal to the division engineer and request a stay. In the meantime, unless a stay is granted, the activity will be permitted to go forward.

We want to upgrade the authority of the district engineer. We think it important that he have more than a clearing house role. We think the district engineer should have substantive authority to issue Corps permits where in his judgment the claims of objecting agencies are nonmeritorious. As regards federal agencies, this could be done by putting a period after the word "agency" and deleting the clause from the portion of the regulation above which is underlined.

A second major streamlining of the process could occur in projects subject to an EIS in which a Section 10 permit is required. The best example of this is the environmental impact statement done by the Forest Service on our five-year timber harvest operating plans. These five-year operating plans include a number of log transfer and storage facilities. The agencies are given an opportunity to comment on such proposed facilities during the EIS process. There seems to be no good reason why the comments of the agencies in response to these five-year operating plans with respect to the log transfer facilities could not also be deemed to be their comments for purposes of the Corps of Engineer permits. Thus, when the Forest Service proceeds with the project, the district engineer should have the discretion to simultaneously approve all of the Corps of Engineer permits which would have to be issued for the facilities mentioned in the EIS to which there was not a meritorious objection. Actual issuance would be delayed until needed and thus the present time requirements for construction would remain in effect. This prevents duplication of process and allows the Forest Service and the operator to concentrate on obtaining permits where meritorious objections exist. This means that the federal and state agencies do not have to go through the same paper work on the same facility twice.

The State of Alaska has undertaken a different approach to this which illustrates its concern in this area. The Department of Natural Resources is reviewing all possible log transfer facility sites in Southeast Alaska. Once this inventory is completed, the various state agencies will be given an opportunity to comment on the sites. Therefore, when application is made for a state tideland lease in connection with a log transfer facility, that approval will already have been given by the relevant state agencies. Thus, the time for obtaining the tideland lease will have been dramatically cut.

Finally, we are concerned that the objections we have been getting to our requests for Corps of Engineers permits tend to move us away from protected bays into areas on more open waters. We believe that this tends to place our logs at greater risk of loss and makes our operations less safe. Safety of both personnel and property should be a major factor in the siting of log transfer facilities. We believe such a provision should be written into the regulations.

In conclusion then, we believe that the district engineer should have more authority with respect to the issuance of permits than he currently enjoys. We believe he should have the authority to issue a permit over an objection which in his opinion is nonmeritorious. Secondly, we believe that log transfer facilities approved during EIS process should be deemed approved for purposes of issuance of the Corps of Engineers permit.

Again, thank you for holding these hearings. We believe that they are most useful to the public. We appreciate again Senator Abdnor, your taking time from duties in South Dakota to learn of our special situation here in Alaska.

Jim Clark
Attorney, Alaska Loggers' Association

TESTIMONY OF SEALASKA CORPORATION BEFORE THE WATER RESOURCES SUBCOMMITTEE OF THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

Sealaska Corporation would like to thank you Senator Murkowski and Senator Abdnor for holding oversight hearing to explore the operations of the Corps of Engineers in Alaska. Before we provide our comments on the Corps of Engineers a brief summary of Sealaska Corporation and how we interact with the Corps of Engineers will be beneficial.

Sealaska Corporation is one of the 12 regional Native corporations created under the 1971 Alaska Native Claims Settlement Act. As a result of this Act Sealaska Corporation has or will receive title to approximately 556,495 acres of land in Southeast Alaska. Our interaction with the Corps of Engineers is and will continue to be frequent because the development of resource on this land is predicated upon the use of navigable waters for access and transshipment facilities such as docks and log transfer facilities. The actual scope of our interaction with the Corps of Engineers is immense when you realize that Sealaska Corporation lands abut navigable waters under the Corps of Engineers jurisdiction for a combined total distance of approximately 683 miles.

Todate we have found the Corps of Engineers to be very responsive to our permit applications required under section 10 of the Rivers and Harbors Act. However, we are frustrated by the limited authority of the Corps of Engineers to rule upon the merits of unresolved objections of another federal agency. The Corps of Engineers should have the authority to override Federal Agency objections if they are found to be nonmeritorious.

As an example of our concern an application was filed by one of our subsidiaries for a log transfer facility in Hobart Bay approximately 50 miles S.E. of Juneau. The National Marine Fisheries Service objected to the facility based upon comments by fishermen that the facility would interfere with a drag used by trollers. We attempted to contact through NMFS and the Alaska Trollers Association the parties who objected to the permit application. The final result was that we were unable to find any fishermen who objected and ultimately NMFS withdrew the objection. The result being that we lost several months chasing ghost fishermen. We believe that early on the Corps of Engineers should have overruled the objection of NMFS because they could not produce the fishermen who purportedly objected to the proposed facility.

Sealaska Corporation would like to suggest an amendment to 33 CFR that would give the Corps of Engineers authority to override nonmeritorious objections. We propose that 33 CFR § 325.8(b) be amended by putting a period after federal agency and deleting the underlined portion.

> "Unless otherwise precluded by this regulation, district engineers may issue permits over an unresolved objection of another federal agency. (if that agency indicates to the district engineer that it does not desire to refer the application to a higher level of authority for review.")

Sealaska Corporation interest in seeing this amendment implemented occurs as a result of our ongoing effort to expedite and improve the permitting process, without jeopardizing the publics right to know, comment and request permit denials if justifiable reasons exist. We believe the proposed amendment to 33 CFR will improve the permitting process without diminishing the public's rights.

This proposed amendment is also consistent with the regulatory reform effort being undertaken by the Governor of Alaska. Through this effort he has instructed the State line agencies to cooperate with the Attorney's General office in developing Uniform Procedure Regulations for the permitting process and to eliminate unnecessary or duplicative reviews of both federal and State permit applications by State agencies.

As part of this process the Alaska Department of Natural Resources is preparing a S.E. Alaska Tidelands Area Plan. The long range objective of this plan is to classify and designate the acceptable uses for tidelands in Alaska. The first phase of this plan is to identify all potential log transfer facilities in S.E. Alaska. Once the inventory is complete all affected State and federal agencies including the Corps of Engineers will be asked to review the sites and comment upon their acceptability. Through the public hearing process and agency participation, those areas designated as acceptable will be classified for log transfer facility use.

We believe that it is important for the Corps of Engineers to be aware of the State Tideland Plan and to participate in the process as they will be invited to do. The purpose for encouraging the Corps of Engineers participation is that extensive agency and public involvement will occur to designate the acceptable log transfer facilities in S.E. Alaska. Once these areas are designated, the user must still apply for a Corps of Engineer's permit for construction of log transfer facilities.

Inevitability the permit application will result in the rehashing of all issues previously arising during the tideland classification process. We strongly believe that this is unnecessary and that once the tideland use is designated by the Alaska Department of Natural Resources, the Corps of Engineers should have the authority to approve all Corps of Engineer permits for those facilities that are within the designated areas. Reconsideration by the Corps of Engineers would occur when new information is presented that was not available, during the classification process. While the rehasing of previous objections arising during the classification process should be considered nonmeritorious objections.

Recognizing that the State Tideland Area Plan is just now being formulated, we encourage the Corps of Engineer's participation in the project and that our proposed amendments to their regulatory authority be made in order to allow them to more effectively implement the results of the Alaska Tideland Area Plan.

We wish to thank you for holding these hearings and if Sealaska Corporation can be of any additional service regarding these matters, please contact us.

August 6, 1981

Senator Frank Murkowski
United States Senate
Washington, D.C. 20510

Dear Senator:

Thank you for the opportunity to submit my written testimony for your consideration on the occasion of this Alaskan Congressional hearing. Let me say that these comments are my own personal remarks as a concerned private citizen and taxpayer.

It is quite ironic that you are here holding a hearing on Corps of Engineers' activities here in Alaska. Just last week I phoned the Corps office in Anchorage in charge of enforcement and threatened them that I would write to my Congressional delegation and request an investigation into the lack of enforcement and their failure to fine individuals and companies operating illegally in Lemon Creek.

I have been engaged in a running battle with all agencies, both State, Local and Federal, over the allowance of the continued devastation of Lemon Creek. I also called the Corps last summer when a haul road was constructed without a 404 permit by Hidden Valley Associates. They illegally dredged Lemon Creek and deposited the material directly on the bank to build a private haul road. To my knowledge, this was done without a 404 permit, and the operators have since been using the road and also using the lower end of the road for the storage of various building materials and pieces of construction equipment. And there were never any fines levied as a result of these illegal activities. There was also a cease and desist order served on Juneau Ready Mix on June 12, 1980, but that order was never enforced.

My home was built 19 years ago, and I have lived there with my husband and children for 6 years. The contention of the gravel removal operators has been that historically gravel has been removed from Lemon Creek. Well, historically, I should have some rights as a private property owner. This is a heavy industrial use and my property, two adjoining lots, is zoned multi-family residential. Historically, the operations in the creek were confined to the extreme lower reaches of the stream, however, in the last three years or so, the activities have crept further up the stream past the Southeast Alaska Correctional Institute. I urge you, on this visit, to please go and witness the devastation yourself. In just the last two years, the level of the creek bed has been dropped at least 18 feet. At a recent DEC hearing, I heard, at least 4 people testify that their wells have dried up and one old man is having to purchase water from a neighor. But as long as residents have not applied for water rights, the Alaska Department of Natural Resources doesn't even recognize that a problem exits. In a state such as Alaska where water is so plentiful especially here in southeast, I shouldn't have to worry about water rights. The creek is so far below its original level before sand and gravel removal *began 14 years ago, the contention of the gravel operators has been that they are being good neighbors by alleviating the threat of flood. This contention is preposterous, considering the amount of gravel that has been removed and the level the streambed has been dropped.*

Anadromous fish use the upper reaches of the stream for spawning and rearing habitat, but with the continued baling and switching back and forth of the channel, (you would think that switching a stream back and forth would be in violation of some law) I do not hold out any hope for the fish. The operators contend that they comply with an Alaska Department of Fish and Game requirement that they not disturb the stream between April 15 and June 15, however, I do not understand when or how salmon are expected to make it up past the six operators who work at various locations baling during the months of August and September when returning salmon attempt to return to their native habitat to spawn. There's something really wrong here.

Currently the Alaska Department of Environmental Conservation (DEC) is evaluating the feasibility of reclassifying the water quality standards of the lower 2 1/1 miles of Lemon Creek to Heavy Industrial. This means lowering the water quality standards that are currently required by that agency in order to legalize the past operations which have been occurring in the stream and continue to occur. In essence this amounts to a vicious game of "CYA." An excercise in futility by DEC. The operations are currently violating current water quality standards, and do you think any one has been fined? Everyone is afraid they will be accused of meddling in state and local affairs. Surely some Federal EPA water quality standards must apply. I would appreciate your inquiring to the Corps to find out if they submitted any comments on the proposed reclassification. I would also like to know whether NOAA or the U.S. Fish & Wildlife Service commented. Someone has to care about Lemon Creek. I do because its literally right out in my back yard, and the State and the Corps are certainly not protecting what belongs to each and every Alaskan, and that's the aesthetics of Lemon Creek the stream is public property.

I feel that Lemon Creek should be restored. All the tree trunks and debris should be removed and the stream reclaimed for all to enjoy. Whether it be for hiking along the stream bank, swimming in, or whatever. Growing up here in Juneau, I played as a child in many streams in their natural state, however, at the present Lemon Creek is an attractive nuisance. No one is foolish enough to use it for recreation purposes because it is an eye sore, and the current is so strong from the rechanneling done by the operators, if a grown person fell into the creek, I'll wager he couldn't get out alive. The banks are that steep. And those banks aren't naturally occurring, they are from dredging.

The operators continue to tell anyone that will listen that the aggregate that comes from Lemon Creek is of such a unique quality that there is no other source available in the whole City & Borough of Juneau. Well I say, why should these operators be allowed to profit to the detriment of private property owners and the entire surrounding community. I say it should be the responsibility of some State or Federal Agency, maybe U.S.G.S., to assist these operators in locating another source of material which won't harm an area so visible and adjacent to private citizens' homes.

I would like to see a Corps office established here in Juneau with at least one enforcement officer. I don't think that I as a private citizen and taxpayer should have to watchdog and safeguard natural resources and assure compliance with Corps regulations. It appears all other State and Federal agencies take the gravel operators' word for it when they say they have all of their Corps' 404 permits in order. In fact, I know there are currently no 404 permits for operations above the bridge on the old Glacier Highway and there are six operators working there now you will note their presence if you tour the area.

Please see to it that more Corps resources are dedicated to enforcement here in southeast Alaska.

My husband and I want to remain in our home and raise our family there, but we can't sit still while this destruction continues. We currently hold a $36,000 mortgage on our home, and why should we be forced to relocate and take on a $100,000 mortgate just because we can't stomach what's being done to Lemon Creek. We're just hardworking little people who can't continue to fight the City & Borough, State and Federal government over the safeguarding of what should be ours by virtue of our being citizens, property owners, and taxpayers.

Sincerely,

Edith E. McHenry

Edith E. McHenry

P.O. Box 1635
Juneau, AK 99802
(907) 586-2388

WATER RESOURCES POLICY ISSUES

MONDAY, AUGUST 10, 1981

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Water Resources,
Santa Fe, N. Mex.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator Abdnor. It is a great honor to welcome you all here for today's hearing on water development policy and water quality issues. This morning we will focus on the various development issues.

I am pleased to be here in what I understand you call "the city different." Sante Fe is even more beautiful than Senator Dominici told me it would be, and I've been having a delightful time here. It is appropriate that we visit Santa Fe to explore the issues of water policy. I know that the people of Northern New Mexico have a great deal of experience in the development and the wise use of your limited water resources. Your acequias, irregation system that you have developed years ago, are still the foundation for you irrigation system and the agricultural lifestyle we all value. This city retains its charm because you have carefully nurtured the beautiful trees and small gardens planted by your ancestors. The city is a leader in water conservation. Your council passed the first ordinance in the country which limits nonnative vegetation. The native landscaping shows the beautiful results of wise water use.

The county is also a leader in planning its resources. The commission has consistently based its development decisions on the availability of water and has joined with the city and the Public Service Company to form a Metropolitan Water Board to allocate its supply of San Juan-Chama water.

I consider myself fortunate to have the opportunity to be here with you and have the benefit of your expertise in water development.

I am also fortunate in sharing the podium with another member of the Subcommittee on Water Resources, Senator Pete Domenici. Senator Domenici is not only the Chairman of the Budget Committee, but a congressional leader in water policy. Let me say that he has done a tremendous job as Chairman of the Budget Committee. I don't know how he keeps up with his schedules. I was with him the other day when President Reagan called him to congratulate him for the great job he did of guiding that budget reconciliation through the Congress.

I know that if it wasn't for the fact that he had that responsibility of chairing the Budget Committee he would be Chairman of the Water Resources Subcommittee that I head up now. Although he has been busy with other issues, he does remain an active member of this subcommittee, and I'm pleased to have the time together with him here in Santa Fe, as well as in South Dakota, which he'll be coming to, to discuss these complex issues. And I look forward to working more closely with him in the future.

Senator Domenici?

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator **Domenici**. Thank you, Mr. Chairman. It's my honor to welcome you to Santa Fe and to our great State, and to join you in welcoming the witnesses and the guests for this hearing. We'll examine the future water needs, not only in New Mexico but as a part of analyzing this all over the West.

Senator Abdnor has been most kind and eloquent in his opening remarks, and I know that we are all pleased that he appreciates the special qualities of New Mexico and Santa Fe, and of our North. He understands the importance of water to the development of New Mexico, and importance that is just as valid in his home State of South Dakota. It's going to be my privilege to be there with you, and I look forward to that also, Senator.

As Chairman of the Senate Subcommittee on Water Resources, Senator Abdnor has proved himself most knowledgeable in the problems of water resources and I commend him for his commitment in this particular area at the National level.

Our hearing this morning will explore a number of critical water issues. Initially, we're going to discuss what must be the most basic of all issues, the availability of water in the West, and the competition that exists in the development of this vital resource. Then we will turn to issues that have particular concern for the people of our State. The status of the High Plains-Ogallala study, which is chaired this year by Governor King; the opportunities to expand our available water through greater research efforts; and finally, the options for reorganizing the Corps of Engineers in the West.

On the latter point, we are greatly honored, Mr. Chairman and witnesses and guests, to have with us Maj. Gen. William Wray, who is the Deputy Chief of Engineers, He's taken time to fly to Santa Fe to discuss this very important question with us and I'm delighted he's here. Thank you very much for coming, General.

Mr. Chairman, I'm ready if you are to proceed.

Senator **Abdnor**. We have a fine start today by calling on Doctor John Bredehoeft; Regional Hydrologist of the U.S. Geological Survey.

STATEMENT OF DR. JOHN BREDEHOEFT, REGIONAL HYDROLOGIST, U.S. GEOLOGICAL SURVEY

Dr. **Bredehoeft**. There has been considerable discussion of the water crisis in this country. I'll try to take a few minutes and see if we can put that in some kind of perspective.

On the average, the country receives 30 inches of rainfall and that translates into, on the average, 4.2 trillion gallons of water a day, 4,200 billion gallons of that, two-thirds of 2,700 million gallons of water a day is transpired back to the atmosphere and that leaves us with something like 156 hundred million gallons of water a day that available to us for our use.

Now, at the moment, we withdraw something like 400 million gallons of water a day, that's our total withdrawal. About half of that goes for thermal-power withdrawal. Our water use, in other words, that amount of water which is transpired back to the atmosphere is something of the order of 100 million gallons of water a day on the average.

Now, of that water use, 90 million gallons of water a day goes for, on the average, irrigation, so, that 90 percent of the water we consume goes for our irrigation in this country.

Now, that, of course, is the average. Those are average quantities and we have problems with those at times. We have droughts and floods and floods in this country still account for $1 billion of our urban damage a year and $2 billion of agricultural damage a year.

Hydrologists believe we know something about statistics of floods, but droughts on the other hand are another matter. They are not simply the opposite phenomena for floods. We have both frequency and duration to deal with. The other problem we're faced with is that the water is not equally divided in this country. In some of the regions of the country the water is a critical resource and probably most critical in the southwestern part of the country. Probably in southern California, Arizona, and New Mexico.

There's no question that the water that we have is totally renewable. In other words, the same amount of water is available that was available yesterday and the day before and will continue to be available. We are under certain conditions, mining ground water and that's one exception to the situation where we say that water is in fact, renewable resource. We're mining large quantities of ground water, particularly in the high plains and I know that you'll hear more about the high plains overall. We're also mining in California, probably in Arizona as well. Significant mines of water in Arizona.

We have begun to look at critical areas of the country, the Colorado River appears to be the area in which the water situation is probably most critical at the present time.

Now, that situation is compounded by the fact that when the Supreme Court allocated the water, they did the allocation based on an early period in this century. In fact, the situation is compounded by the series of Indian water claims on the Colorado River which has yet to be settled.

Senator DOMENICI. Mr. Chairman, would you have us interpose questions?

Senator ABDNOR. That's fine.

Senator DOMENICI. How can you make a statement that we'll have the same amount of water tomorrow as we had yesterday. You told us we have less water now than the Supreme Court allocated.

Dr. BREDEHOEFT. What I'm saying is that the hypologic cycle has so much water moving through essentially the ground water and that's the available supply and it hasn't really changed over time except for floods and droughts and aberrations that we get.

There are certainly demands on that water and those demands are obviously very competing at this point. I mean, for that water supply there obviously competing demands for the water. So it seems to me when you talk about competition for that water, it's fairly obvious what's going on. We have urbanization going on in the southwestern part of the country. We have energy development going on largely in the semiarid portion of the country and most of those compete for water and basically 90 percent of the water that we consume in this country goes for irrigation. So, if we're going to supply water for urban and energy demands, it's going to come from irrigated agriculture.

Senator ABDNOR. Well, Doctor, what's your view on the growing competition between agriculture and energy demands on water? Do you think the Government ought to play a part in getting greater and greater demands for water in the energy areas?

Dr. BREDEHOEFT. Well, obviously the urbanization and the energy development in this country competes because of the competition for that available water.

It seems to me that the real gut issue in this situation is how much of the 40 million acres of irrigated agriculture are we willing to give up in this country to support urbanization and energy development? Let's put it another way. What would be the impact on our agriculture development in the United States by giving up some of this irrigated agriculture in the Western United States. That's been looked at by the Water Resources Council and a group from the university and the Agriculture Research Service. They say that it is not seriously damaging, as far as the country is concerned, to give up irrigated agriculture in the West except for high-value crops.

Now, about a quarter of our irrigated agriculture is in California and California alone produces 40 percent of the fresh produce that we consume in this country. So, giving up that 40 percent of fresh produce would indeed be serious by giving up the other 30 million acres.

Senator ABDNOR. The area may not accept that premise that this country was capable of putting less emphasis on agriculture production than we're focusing today. The demand is there and it's profitable. The other businesses are profitable too and more people are going into them. I'm sorry I interrupted you. Go right ahead.

Dr. BREDEHOEFT. Well, the other thing that strikes me that happens in the agriculture utilization is that what we see is in fact that we oversupply water to agriculture. The plants probably use something like three quarters to half of the water that we supply in agriculture production, 25 percent of the other half of the water moves through the system to reach our ground water system and reappears in the streams.

Now, in that process, what we see happening is an accumulation of salt in a number of agriculture areas and particularly in the aqua system. Probably the most classic example of this is in the Arable River Valley in Colorado where water coming out of the Rocky Mountain front has a total of 1,000 parts per million salts. By the time we get to Kansas it has 3,000 parts per million salts.

That salt has accumulated over a 200-mile stretch of the Arable River Valley. That salt load accumulates in the aquifer system and accumulates downstream and over time to the point to which we see these kinds of salt buildups in a number of irrigation systems not only in the United States but around the world.

There's considerable discussion of could we do a better job in our agricultural irrigation with drip irrigation and some other irrigation techniques which in fact, apply less water and apply water directly to the plant. The problem, it seems, is again, what is going to happen to the salt accumulation? Are we indeed going to see a buildup of salts because we're not circulating enough water through the system to remove those salts which are left behind by the plants?

Senator ABDNOR. Greater volume going through would take the salt out?

Dr. BREDEHOEFT. Well, we're overapplying. Remember the plant transpires basically water, so, the entire salt load is left in the water that remains. So, there is a concentration process going on in that conservation process. If we do not apply sufficient water, it could accumulate salts. So there, it seems to me at least, are some serious questions as to whether we can do a better job in the irrigation deficiency in the sense of applying less water and we may indeed be seeing the situation in which we'll gradually over time buildup salts and destroy much of our agriculture potential.

Senator ABDNOR. Let me ask on this agriculture, Wyoming has a lot of salt in the soil. Can farmers do anything to help reduce that except by using less?

Dr. BREDEHOEFT. Well, what the farmer basically does at the moment is use more watering, the salts move out and downward.

Senator ABDNOR. They're using greater amount of water then necessary?

Dr. BREDEHOEFT. Well, they're certainly using much more water than the plant transpires by a factor of two. They're using at least 25 to 50 percent more than the plant itself transpires. That water isn't lost, it returns to the stream system. We pick it up downstream and it's utilized for downstream irrigation. Most of the water enters the system, is in fact used beneficially, very little water is lost by the irrigation of our country. Most of the water is utilized for plant growth in those irrigation systems. It's true in Arizona, it's true in the Rio Grande, and it's true pretty generally in Colorado.

Senator DOMENICI. Well, doctor, that's true, but are you suggesting then that there is no benefit to using less?

Dr. BREDEHOEFT. I question that there is because in fact all of the water is basically being utilized at the moment for beneficial use.

Senator DOMENICI. Would that be so even in a depleting aquifer like the Ogallala.

Dr. BREDEHOEFT. We probably are overapplying water in the Ogallala, so, that there is some return back. That return gets back to the aquifer and presumably it's available again to be pumped out. At least we think it gets back to the aquifer. If, in the process, we don't see too large a salt buildup.

Senator DOMENICI. Your're not suggesting, then, or are you, that this vigorous kind of efforts in the part of agronomist in our agriculture universities use less water for irrigation.

Dr. BREDEHOFT. It seems to me that the open question is, are we going to see a salt buildup as a consequence of that small equalization? In fact, obviously, we can get water directly to the plant, directly at the time the plant most can make most beneficial use of that water, but, what is the salt accumulation in the process? That seems to me still to be the question.

Senator ABDNOR. Let me ask you, do you think this area will ever cease developing irrigation for farm lands because of the water process that we're going to have?

Dr. BREDEHOEFT. I think we're seeing that to some extent in Colorado, at the moment. We have an urban partner developing along the Rocky Mountain front. We have a fairly large irrigation development. We're going into an energy development clearly both the urbanization and the energy development stand to take water away from agriculture and in the removal of some agriculture. It seems to me inevitable. Water is going to have to come from somewhere.

Senator ABDNOR. Someone's going to have to make those decisions?

Dr. BREDEHOEFT. Either we establish those priorities or the economics of the situation will determine those priorities.

Senator DOMENICI. That would be a way of establishing?

Dr. BREDEHOEFT. Well, the marketplace will certainly establish the priorities for you. If you will live with that. In the past, we have not dealt with water very well in the marketplace. We have normally not dealt with water as an economic commodity in the same way that we deal with most other commodities and that continues to be true. Certainly, in Arizona, we have seen urban development in Phoenix and Tucson which has taken production away from agriculture and the same is true in the southern Los Angeles area, certainly we removed a lot of agriculture production from Los Angeles. Urbanization in that case has taken it away.

Senator ABDNOR. I've always heard that the water level table is dropping in Ogallala, you say it isn't.

Dr. BREDEHOEFT. No, I didn't say that at all. I say we are certainly mining water in the Ogallala. It's very clear we're mining water in the Ogallala. A certain portion of that will not run by the plant. Let's say we apply 2 acre-feet of water; 1 acre-foot of water by the plant, the other acre will go back to the aquifer. I guess I'd like to make one more comment, and that's the other very pressing water issue that we see in this country. It's our technological society. We have generated a number of wastes and the environmental movement is its consequence. The environmental movement attempts to clean up the air and the water and when you generate waste you generate it as gas, or liquid, or solid. When we remove the gas and the liquid we are left with the solids. We generally dispose of those wastes on the land.

We have seen as a consequences of our practice over the last 25 or 30 years a rather casual practice of disposing of these wastes and we're left with a situation where we are indeed contaminating the shallow aquifers of this country. This, it seems to me, besides the issues related to urban development, energy development, and the issue of competition for water is the other major issue in my mind. What we do, as a technological society, with our wastes and how we dispose of them.

We don't, in fact, contaminate the water resources of the country.

Senator **Abdnor**. In my State of South Dakota and also in Wyoming we're having some dispute right at the moment over which we have very little to say. In South Dakota they say go down to the Madison formation and build 40 deep wells. The wells would be very close to the State line.

Dr. **Bredehoeft**. They're very well aware of it.

Senator **Abdnor**. That is very controversial. There has been studies made on this. It's only quite natural to assume you take water out of one side of that State line, it's going to affect water on the other side, is it not?

Dr. **Bredehoeft**. I think it's fair to say if you take that water from the Madison formation, either in Wyoming or South Dakota, you are, in fact going to mine that water out of there and utilize it for, in this case a coal slurry pipeline. We have, in fact, mined other minerals and you know we are indeed mining water and there's no reason why that cannot be done. It's a simple matter to mine water just as our other natural resources are mined. We don't deal with water generally in that context. We generally talk about mining water as a fairly bad proposition.

Senator **Abdnor**. The mining of water in one State can certainly have a great effect on the other State.

Dr. **Bredehoeft**. It will have some effect.

Senator **Abdnor**. If you had to outline a Federal program to assure the greatest availability of water, what would you suggest?

Dr. **Bredehoeft**. Well, basically, that's an unfair question. I guess I would say to you that certainly the issues are fairly plain. Urbanization, energy development, and agriculture are major national issues and they're issues that seems to me have to be dealt with at a national policy level.

Senator **Abdnor**. An interesting group that makes that decision too. Thank you.

Senator **Domenici**. Doctor, you mentioned the process that causes our water to get more salty, but you didn't mention existing brackish or basins of salty water as any part of either problem or solution. What about brackish water availability and continued research? Try to make it more useable. Is it relevant?

Dr. **Bredehoeft**. Well, almost everywhere you go the deeper you go the larger the salt content of the water. There are certain areas of the country that have a 4 times concentration of sea water. So, almost everywhere you go particularly in the sedimentary portion of water, as you go deeper, there is unquestionably a fairly large quantity of saline and brackish water. The probability with this so far has been economics. It's been too expensive to desalienate this water. Certainly, the economics are not at all favorable for agriculture. They might be favorable for communities and for municipal use and other situations where other supplies are not available. But, the economics are nowhere close to economics that are favorable for agriculture development and I question that that's there in the very near future. It seems nowhere near that point with the desalienation program, but there's no question we can do it. It's a simple matter of economics.

Senator **Domenici**. I take it, then, that if this puts you in a position contrary to the administration you use your own judgment. Do you agree with the administrations approach to getting the Federal Government basically out of desalting?

Dr. **Bredehoeft**. It seems to me that water research and technology have pretty well demonstrated the technology is there and the technology is feasible.

There's no longer the question, I don't believe, of demonstrating that this technology is indeed available at the present time. I think that's fairly clear, it is available. And, so, I suppose here come the question, when does the Federal Government step out and say we demonstrated that technology?

Senator **Domenici**. While the National Government does not have a mammoth program, it had, for a number of years, a basic research grant program working with States. The administration's early budget got them out of that business too, what are your feelings about that?

Dr. **Bredehoeft**. Let me say a few things about that. I managed the water research program for the Geological Survey in Washington for 5 years and I was involved in coordinating Federal research over the last 7 years and we looked carefully at what the magnitude of water research was in this country.

We spent something around one-quarter of a billion dollars on water research which is being spent by 22 Federal agencies. When you look at the OWRT picture, it's a fairly small factor you see. Basically a $10 to $15 million budget which went for research. The water problems is a small piece of one-quarter of a billion. The big factors have a very major piece of the action. Suprisingly enough, the oil line agent have about 10 percent of the action. It's fairly sizeable sum of money.

The one thing that I think OWRT has done over the years, and it's the thing that seems to me gets the least credit, is that the OWRT money in the 1960's has produced a cadry of water professionals in this country and a very dramatic increase in expertise over what we saw in the 1950's. I think it's fair to say we've got an institute in almost every State. They turned out a lot of agriculture and we very greatly increased our expertise in this area.

Senator **Domenici**. So, have you got all expertise developed out there and institutionalized so it will continue without Federal money?

Dr. **Bredehoeft**. It's fairly clear at this point as you look at the marketplace for example. The problems related to waste disposal in this country, water quality particularly ground water. Hydrologists at the moment can command very large salaries almost anything they can get. So, it's fairly clear from the marketplace that there's a need for more of these people, it's just that simple.

Senator **Domenici**. And the institutions have a driving force at the local level?

Dr. **Bredehoeft**. In my view, they've been a driving force, yes, I think that the passage of the Anderson Act in 1962 which enabled water resources institutes, in my view, created a dramatic shift in the water community.

So, I think the bill has been very useful and there has not been a lot of money spent on this.

Senator DOMENICI. So, we should continue it in your view?

Dr. BREDEHOEFT. That would be my view. That may be contrary to the administration's position.

Senator DOMENICI. They aren't right in everything you know, Doctor.

Dr. BREDEHOEFT. I think it's been very useful for this country.

Senator DOMENICI. But, let me ask you, in the Department of Energy and EPA where are all those big dollars being used? You mentioned most of this one quarter of a billion in those two.

Dr. BREDEHOEFT. Well, there was something of the order of $40 to $50 million. This has been 3 years ago, but I think those numbers are still reasonably accurate. Mostly for basic research on water problems.

Senator DOMENICI. You mentioned that in those two big one's they're spread over 22 other agencies besides OWRT.

Dr. BREDEHOEFT. Twenty-two.

Senator DOMENICI. In total. From your perusal of that, is there something to be gained by this committee and others in the Senate taking a look to see if that ought to be better coordinated?

Dr. BREDEHOEFT. We looked fairly carefully at the coordination of this as a matter of fact. There was a committee on water resources research which the Carter administration did away with. But, that committee looked fairly carefully at the documentation in essence that that might be occurring with this large sum of money.

It turns out that that documentation was of a very low level. It looked to me like 2 or 3 percent might be considered duplicative. One might ask what is the mission of all those agencies and the missions are rather different in each case. Are there things that fall through the cracks between the missions of the various agencies? Are we, in fact, doing all that we need to do? That seemed to be a ligitimate question? I did not feel there was a lot of redundance. We looked fairly carefully at the magnitude of that redundance.

Senator DOMENICI. Mr. Chairman, I have two more questions, with your permission, I will proceed. Major General Wray is a sophisticated gentleman but is still unable to do a better job of predicting the weather. Would you comment on that?

Dr. BREDEHOEFT. I think it's probably the most difficult geophysical problem that we have before us. Basically, it involves dealing with the atmospheric dynamics on a global scale and it also involves fairly complex coupling between the oceans and the atmosphere and there are problems in assimilating the dynamics of the atmosphere over the entire globe. It's a very large, difficult mathematical problem. There are problems in the date base we do not have a large data base over four-fifths of the globe.

Senator DOMENICI. But, Doctor, we know it's something important. I guess the next question would be even if it is difficult, would it be important that we be better equipped and if so, are we putting enough talent in it?

Dr. **Bredehoeft.** Well, certainly over the last 5 years or so we have developed the U.S. climate program and a very large proportion of that money is going into climatic predictions and there certainly is a number of sophisticated groups in this country working on trying to predict the weather. We do OK for 2 weeks but beyond that we're in trouble and I think everybody agrees with that. It is a very very difficult problem.

Senator **Domenici.** Is it important?

Dr. **Bredehoeft.** I think it's important, yes.

Senator **Domenici.** My last question has to do with conflicting jurisdiction in terms of the right to use water in the claims of one State versus another and as to non-Indians and Indians. Am I fair in assuming you're familar with these kinds of problems?

Dr. **Bredehoeft.** Yes, but I think you're much better off to ask Steve Reems those questions.

Senator **Domenici.** I already know his answer. Would you comment on interbasin transfers?

Dr. **Bredehoeft.** There has been a great deal of talk in this country about major interbasin transfers, one basin to the other. The situation is that the States generally have privacy with respect to water and water decisions in this country. In fact, we only see one place where there are major water interbasin transfers, that's in California. California has a system of major interbasin transports in the north of the State. It seems to me that's possible in California because of the political jurisdictions and that's the only reason it's possible. It's very difficult in any other part of the country to think seriously about major interbasin transports.

Senator **Domenici.** Has it had a beneficial impact as a result?

Dr. **Bredehoeft.** That certainly is objective to the judgment. It certainly has fostered development in southern California.

Senator **Domenici.** Well, it seems to me we're trying to suggest to the committee that interbasin transports are probably something we ought to be doing more of but we can't because of your description of the jurisdiction, is that what you're telling?

Dr. **Bredehoeft.** It seems to me that that's kind of in the same category as the Indian water reservoir.

Senator **Domenici.** I have no further questions, Mr. Chairman.

Senator **Abdnor.** Thank you, Senator. Well, Doctor, we certainly appreciate your being here and your expertise in this area. You've been very helpful. Thank you.

Senator Domenici said earlier, we're extremely pleased that our next witness is here with us today and at this time I'm going to call on Maj. Gen. William Wray, Deputy Chief of Engineers; U.S. Army Corp of Engineers.

We appreciate very much your being here General and we have your first statement. Proceed anyway you care to. If you want to summarize it that will be fine.

STATEMENT OF MAJ. GEN. WILLIAM R. WRAY, DEPUTY CHIEF OF ENGINEERS, CORPS OF ENGINEERS

General **Wray.** Thank you very much, Mr. Chairman, Senator Domenici. I'm very pleased to be here to represent the Corps of Engineers and talk a little about our organization and what we are looking at in the way of reorganization.

I have prepared a statement as you mentioned, Mr. Chairman and I am prepared to summarize a little. I recognize the purpose is to talk perhaps a little more specifically about our reorganization as it affects the West.

I'd like, however to be a little more general and talk about our overall problems so that we understand that and talk about more specific things that you wish in the context of the overall mission. The Corps of Engineers mission derives basically from the congressional authorizations for both water resources development and for the national defense responsibilities assigned to the Secretary of the Army and the Chief of Engineers.

As you know, these included both the supportive design and construction for the Army and the Air Force as well as the Civil Water Resources Development Commission. OK, we also provide support and assistance, technical support and assistance to other Federal agencies. Our organization is worldwide. We have about 40 districts located worldwide who actually do the work for the corps. Then we have some intermediate headquarters called divisions which supervise those districts. Within the United States we have 36 districts, all of them work on civil-worked projects. But, only 11 of those, also perform military construction.

Now, as you know and I might mention to the rest of the people here that our civil works activity encompass a very wide range of services to the American public. Our program which is appropriated at about $3 billion a year covers both operation and maintenance of existing works that we've built and construction of new water resources projects. Projects that we execute include flood control, navigation, recreation, water supply, and hydroelectric power with many of the projects being multipurpose.

Most of those civil worker projects are initiated by the State who express their needs and concerns to their elected Representatives in Congress and then after executive branch and congressional authorization and funding, we go ahead and proceed with this work.

The corps also provides technical and planning systems to State and local agencies and participation with those agencies in disaster emergencies and efforts to protect lives and property.

I have attached to my statement a chart which shows our organization and as you will notice generally we are organized so that districts have responsibilities which are along water resource boundaries and that is river basin boundaries and watersheds. As we began our business most of our districts initially were along the rivers that were generally navigable and around ports. And so, you'll see in the Southeast, the East, and the Midwest a great deal of our districts are where the navigation systems primarily exist. But, as we go into flood control and hydroelectric power projects later on, we established additional districts in other areas including the West. But, it's very obvious that there are fewer districts in the West including the Rocky Mountain States and part of that region we share responsibility with the Bureau of Reclamation for water resources development in this particular area.

It's probably not well known, but the Corps of Engineers did not always have a military construction mission. In fact, we were given the mission back at the beginning of World War II at which time we used this large structure of civil works districts as the basis for the work. After the war it turned out that all of our districts continued to do both civil works and military construction.

Senator DOMENICI. Before you leave civil and go to military, might I just make an observation which I think our chairman shares. I have the greatest respect for the Secretary of Interior, but it appeared to me that for a few months during the early days of his administration that he did not know that the Corps of Engineers was not in the Department of Interior and didn't know that it had a lot to do with water policy in the country. I surely don't want to ask you General, if you agree with that observation at this point, but how significant is the Corps of Engineers' role in a U.S. Government water policy? Do you have any way of quantifying that force?

General WRAY. I suppose that perhaps the best answer to that, sir, is that recognizing there is little time taken by the new administration in getting political appointees in all of the various departments, there probably was a little bit of uncertainty about just where all the responsibility for water projects and water resources work should be. As you know, we were late in getting an Assistant Secretary of the Board to oversee our activities. Since that time, Mr. Bill Gianelli, who I admire as a very very knowledgeable person, was appointed. He was Governor Reagan's water resources adviser in the State of California. Mr. Gianelli knows Mr. Watt very well, he also knows others that Mr. Watt appointed or selected for his staff and since that time there has been a group created that's an inner-agency community that's looking at water resources projects and Mr. Gianelli in fact, has a lead role in that regard so whatever concerns that we may have had about the, say, misunderstandings on various responsibilities, I think we feel confortable now.

Senator DOMENICI. Thank you, General.

Senator ABDNOR. Well, let me ask you simply before we get off the subject of your structure throughout the United States, just looking at it, would you agree that maybe the Rocky Mountain area is under represented?

General WRAY. Sir, if you look at the map, it certainly would appear to one that there ought to be more districts in the area. I will comment a little bit on that in my later discussion, if I might go ahead. I was going to talk about the military very shortly because I want to make a point in that regard, but I'm going to return to the reorganizational studies that we've had going.

Senator DOMENICI. General, on that score when you mentioned the $3 billion appropriation, does that include military?

General WRAY. I should have clarified that. It does not include military and military construction. We do for the Army, the Air Force and we are in fact doing some for other countries as you know, paid for by them, but, our U.S. military construction is at least as great $4 billion a year. So, it's very big business but it's a different kind of construction. But, what I was going to say is that whereas after World War II in all of our district military construction we found it necessary, in 1961, and later again in 1970, to pull back somewhat and consolidated our military construction in four districts primarily for economy sake. The overhead involved, consolidating the Albuquerque district which did military construction but lost its military construction mission. As we consolidated the defense mission though we retained in our civil work districts a standby mobilization responsibility. That's very important. I think if I don't stress anything else today I'd like to stress that one of the most important reasons for having a civil organization that is spread throughout the United States is to have a standby mobilization capability in event of a national emergency. We expect that those districts would all return to a military construction mission. We also, as I said, have done work for others. For example, NASA space program, the postal service, the Department of Energy, EPA, and many others and the work we do in supporting EPA on the construction grants program is one of the larger activities we engage in.

Now, with that background, if I could just turn a moment to the studies that we've done starting in 1977. We did some studies which looked primarily at our workload trends and our long-range mission to try to assure that we knew where we were going and what we were going to do. Particularly during the last administration, it appeared as if there wouldn't be any more water resources projects. We reviewed our own organization. We thought perhaps there was things we could do to streamline it to reduce its size somewhat, make it more efficient and this was as I say on our own, we weren't really forced into these studies, and we didn't turn up any great changes. In fact, we didn't make any major realinements. We didn't pose any districts. We adjusted some boundaries and made a few functional transfers at that time. Contrast of these studies, we are engaged in some studies today which were initiated in response to a mandated reduction of our civil works and personnel spaces. The reduction of about 3,000 people by the end of fiscal year 1982 and about 2,200 more in the 4 years following that.

The current analysis of our civil work structure and staffing is developing into three levels, and in priority they are as follows:

First, we would make reductions through realinements and in some instances consolidation of functions and organizations for greater efficiency. These realinements would stem from the studies we did in 1979. We think they were useful in getting started on this current round of study.

Second, we find it necessary to prioritize our functions with a degree of nationwide consistency. We know that we can't do everything as well as we did before with that many fewer spaces which I don't think we're willing to admit that we were inefficient before. So, it sort of means that somewhere you have to look at priorities and decide what it is you're not going to do.

Senator Domenici. What percent reduction is that, General?

General Wray. I don't know that. I could say specifically right now, sir. But, it does involve, for example, reduction of recreation.

Senator Domenici. I mean 3,000 and 2,200 on a straight personal basis?

General Wray. I'm sorry. The 3,000 people would be about 11 percent because we have something in the neighborhood of 27,000. On the civil works side and the 2,000 more of course is another, well 7 or 8 percent. It's very significant we think. But, what we're trying to do is to cut down on those things which do not support our mobilization mission as we try to maintain, as best we can, the professional engineering capabilities that we have that's our hardcore. We're fighting every step of the way to maintain that and it's third priority then that cuts would be those that are locally determined by the district divisions themselves to complete the manpower cut and those are, I think perhaps the smaller part of the cut.

I should say that while the civil works spaces are being cut, the design and construction load for the Army and the Air Force is expected to increase perhaps by about 50 percent in fiscal year 1982 with further increases expected thereafter. Then we have been looking at the possibility of putting some additional districts into the military construction business again. So, that we can be responsive to the needs of our military agencies.

Senator **Abdnor**. The great increase in the military budget?

General **Wray**. Yes, sir. In later use it would be due to whatever happens to MX but forgetting MX, there is a recognition on the part of the current administration that we need greater defense spending and that also includes having better facilities for our soldiers and I'm delighted at the prospect of improving those things.

Senator **Abdnor**. Who makes the regimen, do you?

General **Wray**. Yes, sir.

Senator **Abdnor**. Not only in facilities I assume.

General **Wray**. Both the construction and operation maintenance of those facilities. Over the past years I consider we've been underfunded in taking care of those things. I spent a total of about 7 year's either developing the military construction programs and testifying before Congress on them or in executing military construction programs and directing the corps military construction mission. So, I feel very comfortable in talking about the need versus what we've had.

I should say though that along with the increase in the military construction figure, we see the need for additional personnel spaces and we have not had those spaces provided to us yet. We've had some provided to get ready for MX should it come about. But, I would expect hopefully that some additional space will be provided in the following years.

Now, as to the status of our studies and later this month the Chief of Engineers expects to present a revised plan for achieving our civil works reductions to the Secretary of the Army. Following the presentation, assuming that the Secretary of the Army has no hangups with it, we will announce what we've proposed as congressional and public comments and following that then, the final decision would be made. In summary, Mr. Chairman, I would like to assure you that as we do these studies, we will continue our projects in studying our long, as well as short-range trends and workload missions and priorities as we review and analyze our organizational staffing.

We certainly are most sensitive to the need for structure that permits flexibility in response to the Nation's needs and then allow us to maintain full capability and engineering technical skills. That's extremely important to us. I believe with that, sir, I will conclude my remarks and respond to questions that you may have.

Senator ABDNOR. Isn't it true that if you were short in manpower for planning and research, you would contract projects out?

General WRAY. Yes, sir, in fact over the years this has been much more common on the military side. In fact, we do our military work with about a third of the number of people that we have on the civil side. The civil side is an area that calls for some rather special expertise that we feel we need to keep an inhouse capability for. Nevertheless, we do contract out a great deal of design to our private engineering firms which contract out surveys.

Senator ABDNOR. How would you say that related in costs? Do you get more for your dollars by having your own people contracting it out or overall?

General WRAY. It really depends on the particular area, sir. I think in military construction where the buildings and other facilities are rather common to the engineering community we are better off to contract, perhaps about three quarters of the design and only do about a quarter of it inhouse to maintain our technical capability and to be able to monitor. We do our design about 75 percent inhouse and 25 percent through contract. But, there are certain things like surveying and field investigations and special studies that may require some very very special expertise. I think we're just as well off to contract that and I'm not sure that I can relate the costs.

Senator ABDNOR. How would you explain the fact that the Albuquerque area contracted out almost 50 percent of the planning and the Sacramento area has virtually no contracts. Is there any reason for that?

General WRAY. I find some of that a little difficult to explain, very frankly, and I should say that a part of our study effort was aimed at trying to get a little more uniform situation with regard to the amount to work contracted out in the district. We find also that some of the districts have far more people concentrated on recreation than some of the other districts.

Senator ABDNOR. I notice you said you're cutting out recreation. How are you going to handle the loss in the recreational areas? Will the State or someone else pick that up?

General WRAY. In some areas we just will not be able to provide the degree of services that we have before. In some cases the States do operate some recreational areas but I know that they have found it more and more difficult lately to do these things because they have the same funding problems that we have. But, it's again a matter of priorities, if we're going to have to reduce our service in some area then that's the area that will least adversely affect the Nation's needs.

Senator DOMENICI. Thank you, Mr. Chairman. General, I appreciate your forthrightness with reference to the planning in the Albuquerque office versus Sacramento. It seems to me that if you just look at the present district workload, the Rocky Mountain southwest is going to be a chicken and egg situation because we don't have a big workload because we're all broken up in pieces and we have offices in California and offices in Oklahoma and Texas doing the work.

Now, it would appear to me that just a poor workload backlog will do nothing other than cut slots rather than reorganize. Is that what you mean by looking at workload or are you going to look at workload as it might relate to an office and what it might do rather than what it is presently doing?

General **Wray**. Let me go back and say first with respect to workload that is certainly one of the least superficial things which affects the district in the Rocky Mountain area. In fact, several years ago, we studied very seriously the idea of establishing a Denver district because there's a fair amount of military construction and civil works construction there. We thought that might not be a bad idea, but we couldn't justify it economically. There certainly is an argument to be made in having an organization that is in an area that is somewhat different and that is specialized in the needs of that area.

We have a Galveston district which is not one of our largest districts, certainly doesn't have a lot of projects but it's particularly knowledgeable when it comes to coastal activities and I think that you'll see when we get through with this reorganization that that district will concentrate on those things that it is most competent to handle and certainly the other Indian districts wouldn't be able to provide the Concho services. I sort of hesitate to talk too much about all of the specifics of the Albuquerque district. I'm sure you know that in the reorganization we've looked at a very large spectrum of possible missions in the future for the Alburquerque district all the way from that horrible thought of closing and I agree I would hate very much to see anything of that sort happen. All the way to giving it a full military construction responsibility and the study is not over. I think it perhaps inappropriate to comment more specifically but I want you to recognize the range of considerations being given and the fact that we do understand and appreciate the fact that the Albuquerque district has some areas of expertise that are certainly not common in many of our other districts where the problems generally are different.

Senator **Domenici**. Well, General, the thought that you couldn't hate closing coincides with this Senator's feelings. We wouldn't want to let this meeting go without my sharing that emotion with you.

Is it logical to have Sacramento as the basis for all of western Colorado, and northwestern New Mexico? It seems to me that went in because of a basin but it appears to me the problems that are going to be confronted in that area now are very different from when you began. I just don't understand how Sacramento could continue to be considered to be the lead area.

General **Wray**. Well, I certainly think you have a good point, certainly one that is worth consideration. I'll be perfectly frank to say that I don't know that we have considered some of those things as much as we should and as it may be necessary to in the future. I think, with respect to Colorado, for example, over on the western slope and incidentally I'm a lover of that country because I'm a skier but there has been little or no water resource development worked by the Corps of Engineers in Colorado on that western slope. And, of course, the few people had been used to maintain that beautiful environment. So, I think it's been academic up to now with regard to who had the responsibility for that area, just hasn't been any work there. It may well be that in the future there may be a greater need for the corps to get involved and those considerations that you suggest certainly should be made.

Senator DOMENICI. Well, General, I don't know that Senators Wallop, Armstrong, Hart, and others are right but if you read what they've been saying about that area in terms of shale development, while they favor it, I think they've been saying rather unequivocably that you can't establish it without better management of the water and that better management of the water in the case, while some might not like it, does, mean some deconstruction of some dams and reservoirs and the right to better management. You must be aware of that?

General WRAY. I would completely agree with you there. We get into the relative responsibilities of the Bureau of Reclamation and the corps and I certainly wouldn't want to do anything to suggest that we should begin to take over any of their missions or they should take over any of ours.

Senator DOMENICI. Well, General, wouldn't this 1984 personnel cutback that is going to occur, absent the injection of new spaces for military which will obviously be programed pursuant to the military need that you have spoken of; won't this be the time to go ahead and consider reorganization instead of nickel and diming the offices? See, what concerns me is why do we have New York City, Philadelphia, Baltimore, Wilmington, Charleston, south Virginia, Savannah, and south California and only one district in the southwest?

General WRAY. As I mentioned earlier, they develop because of their navigation responsibility and the rather significant amount of work that they had in those areas, certainly all of that work dosen't exist now. I think if all other things were equal, we would like to consolidate some of those activities. I think we're being constrained from consolidation or let's say, elimination, of districts through the Hart amendment with the military construction bill. I wouldn't want to comment as to what we would do if absent that bill because the decisions there are certainly going to be made above my level.

Senator DOMENICI. Well, I tell you, General, I know that this might sound irrational coming from me, but I didn't take any great pleasure in introducing Senate bill 1026 prohibiting a 10-percent cut unless districts are first cut 10 percent. I think you leave us no alternative unless you have, and I take a real gamble in taking this position publicly, but I don't think you are going to get anything significant done until you go ahead and reorganize and some are closed and some are expanded. That may very well mean we are closed and others expanded. It doesn't appear to me to be very logical. But, you know, Congressmen and Senators take a great deal of pleasure in preserving a little office. I'm doing that with S. 1026. I'm not making any bones about it. Over the next 3 years, you're going to get that every way you turn unless you say, let's go look at 1984 right now and do it right.

General WRAY. I think I should comment that, with respect to reductions, the districts are going to be making reductions everywhere in certain areas. I should also say that the study of our districts is an initial step. What we expect to do as soon as we have looked at the districts is to begin looking at our division structure and see if we shouldn't, perhaps, reduce the division office and decrease that structure and these are pointed toward the future years with 2,200 spaces cut. And we are following this with a look at the military construction missions. I think after this succession that's done perhaps, we have have a better consideration of the kinds of things that you speak of. Certainly not everybody will agree. But, I certainly appreciate your position. I tend to agree with your views and observations.

Senator **Domenici**. General, the chairman asked about disparity between the Albuquerque district in terms of what it contracts out for planning and what Sacramento, for instance, does. Would not disparity lead to the conclusion that there's more inhouse need here or what would one conclude if this district contracts out 50 percent and another contracts out none?

General **Wray**. I say certainly one has to conclude that one or the other is wrong and I'm not sure where the best balance is. I'm afraid that with regard to the specifics of all areas of planning and engineering in the districts, I can't really address the specifics.

Senator **Domenici**. I understand.

Senator **Abdnor**. General, do you suppose there's any political consideration put into this when alinements are considered? They are a big State.

Senator **Domenici**. You mean California?

Senator **Abdnor**. Yes.

General **Wray**. I know that we have tried our best to be as objective as possible without any political considerations whatsoever. Whether political consideration is to be cranked in at higher levels is something I can't really address.

Senator **Abdnor**. How many districts in California?

General **Wray**. There are three, San Francisco, Sacramento, and Los Angeles.

Senator **Abdnor**. Plenty of opportunities for cutting.

Senator **Domenici**. Good opportunity to disperse that a little, Mr. Chairman.

Senator **Abdnor**. Let me ask you this on your realinement. Was there any congressional input at all in it?

General **Wray**. We've had a lot of informal advice, sir. We've had a great deal of statements from Congressmen who want to insure that their interests are considered.

Senator **Domenici**. The chairman is getting some today as you understand.

General **Wray**. We appreciate all the help we can get, sir.

Senator **Abdnor**. Is there going to be congressional input in the future as you go along?

General **Wray**. Yes, sir. As I mentioned after we have given the Secretary of the Army and the Chief of Engineers a recommendation, we will announce those recommendations publicly and we will seek congressional and public reaction to the recommendations.

Senator **Abdnor**. One last thing. Let's say the Domenici legislation goes through, would that have some affect on your alinements? All of a sudden we have distribution formula for projects in all 50 States, would that cause you to have to back up and take a whole new look?

General WRAY. To the extent it affects the workload. Things of this sort we certainly have to adjust to.

Senator ABDNOR. All right.

Senator DOMENICI. Thank you, Mr. Chairman. Let me get back to whether or not you go with reorganizations that establishes your interim cuts and your long-term cuts or whether you go a piece at a time. It appears to me that an early cut with a later buildup of a district would be very wasteful. You get yourself in hot water twice.

General WRAY. Yes, sir.

Senator DOMENICI. Does that sound right to you as a major general?

General WRAY. It sounds wrong to cut some of your hard-core expertise, your professional engineering capability and then have to go back and rehire a year later. We must keep our longer range missions in perspective and try to plan so that we don't do something dumb in that regard.

Senator DOMENICI. General, you do get a lot of House and Senate pressure with reference to maintaining more or less the status quo; do you not?

General WRAY. Yes, sir. Any time you begin to cut away at something in any congressional district obviously the Congressmen are going to feel the need to protect the interest of the people and I don't say that in a derogatory sense at all. It's understandable. In many cases, I suppose, where one cuts by contracting out some service, it may well be that the same people who are establishing things now as part of the district will establish the same tasks as part of the contract effort, but that's something you can't depend on.

Senator DOMENICI. Are you suggesting to us that the plan you are putting together for submission to the Secretary is going to be the best professional judgment of the corps or is it going to be by what kind of guff you might or might not get?

General WRAY. I think I'd have to be perfectly candid and indicate that the final plan will be affected by practical considerations of what we can and cannot do.

Senator DOMENICI. Without Congress?

General WRAY. Yes, sir.

Senator DOMENICI. I just have one last question. Let me ask you, General, since the Dominici-Moynihan bill was mentioned, I think you must know my concern about the ad hoc nature of the corps projects and the Bureau of Reclamation projects that is not to say that none of them are needed, but it appears to me that many things are forced on big agencies like the corps by a congressional fiat. It says this is a project, now go study it, then, Congress plays around with the cost benefit in order to justify that project after you've done it, even if it wasn't of the highest priority. Now, that's my editorial observation on the status quo. I think I could prove with how many billions of backlog projects, 50 billion as old as 20 years, 25 sitting there authorized, you studied them and the only real chance of ever getting them off the ground are some new powerful figure appearing on the horizon and deciding to get them appropriated. Now, without in any way assuming that something as dramatic as Domenici-Moynihan as the way we ought to go, does the present method of selecting projects and the rather significant involvement by congressional people in projects, does that bother you as a professional major general of our super engineering design outfit called the corps?

General **Wray**. I think that the study of projects by the corps in trying to determine their merits economically and the benefits they provide is satisfactory. I'm not at all confident that the projects which are finally authorized and appropriated, let's say, are of the highest priority from the standpoint of the Nation as a whole. I personally feel that the current administration with a view toward greater costsharing and perhaps eventually almost full cost reimbursement, may, just by the principles involved, result in greater attention on how bad one really needs the projects, and have to put money on the line at the local area. You become pretty convinced about the need for that project and I think maybe that might help.

Senator **Domenici**. That is, if for nonnational or non-major-interstate projects if the State was more a part of it and had to put some money where their mouth was, it might tend to eliminate some projects that were of lesser priority.

General **Wray**. I think that the State should have a greater role in all of these things.

Senator **Domenici**. Mr. Chairman, I have no further questions, but, I did not want to let this opportunity pass without conveying a personal observation, General. We have a new division director and I don't know him very well, Lieutenant Colonel Roth, but, I do want to say to you that when you assigned Colonel Roth to our area, I was very concerned because I thought how in the world is Colonel Roth, who was previously in Delaware with his origins in Philadelphia, I wondered how is he going to handle this area. I really want to tell you and this record reflects that he's an outstanding man with some really rare talents to get along with people and, I think, he figured out ways to solve problems. We really need more of his type. I just wanted to tell you that.

General **Wray**. I appreciate that, sir. I know Roger very well. He worked for me before he came out here. I might say you find it very frequent that we assign district engineers from outside an area rather then a hometown boy and one of the reasons is that we try to be as objective as possible and provide objective people where posssible to avoid decisions that are not based totally on professional experience. The district engineers have ample technical expertise but it's that little objectiveness without bias that we think is important to retain.

Senator **Domenici**. Thank you very much.

Senator **Abdnor**. General, we thank you very much. We kept you a long time. You're very helpful. We thank you for making the efforts to come here today.

General **Wray**. Again, I'm delighted to be here.

Senator **Abdnor**. Let's take a very brief recess.

AFTER RECESS

Senator **Abdnor**. Mr. Reynolds, Jean Williams, Mr. Robert R. Lansford. Will you all come up here together?

We welcome you folks to the committee, and I hope you don't mind appearing as a panel of three, but I think it will help move the program along. You're all on the same subject as I understand, the status of the High Plains study, and so Mr. Reynolds, we welcome you to the committee. Why don't you lead off?

STATEMENT OF S. C. REYNOLDS, SECRETARY, NEW MEXICO INTERSTATE STREAM COMMISSION

Mr. Reynolds. Thank you, Mr. Chairman. I feel that I'm in good company, and I appreciate it. Mr. Chairman, for the record, my name is S. C. Reynolds. I'm New Mexico State engineer, and ex officio secretary of the New Mexico Interstate Stream Commission.

Mr. Chairman, as you know, Public Law 94-587 was enacted in October of 1976 in large measure because of the concern of Senator Domenici, Senator Bellmon, Congresman Mahon, over the declining water sources of the Ogallala aquifer of the High Plains. The Secretary of Commerce was authorized and he directed to study the depletion of the natural resources of those regions of the six High Plains States that are utilizing those declining water resources. The legislation directed the Secretary of Commerce in carrying out the study to cooperate with the Secretary of the Army and appropriate Federal, State, local agencies, and the private sector. To cooperate in the study, the Governors of the High Plains States created the High Plains Study Council in January of 1977.

The Economic Development Administration of the Department of Commerce in September of 1978 selected High Plains Associates, comprised of Camp Dresser & McKee, Arthur D. Little, and Black & Veatch, to carry out the study.

Governor King of the State of New Mexico was elected to serve as chairman of the council for 1981, which is perhaps the crucial year of the study.

The other members of the study council representing New Mexico are Dr. Gerald Thomas, president of New Mexico State University, former State Senator Bob Wood, a banker from Portales, and the State engineer.

On the recommendation of the study council the contractor entered contracts in agencies of each of the States in the amount of $300,000 to carry out specified elements of the study. New Mexico State agencies participating are New Mexico Interstate Stream Commission, our energy and minerals department, and the Water Resources Research Institute at State University.

The contractor has worked in close consultation with the High Plains Study Council, its regional committee and subcontracting State agencies. The study is moving into the final stages with the draft final report sheduled for about December 1 this year.

Senator Domenici. Mr. Chairman, could we just interrupt for 1 minute?

Senator Abdnor. Yes, sir.

Senator Domenici. Steve, for the record, we did invite the Governor to be here with you. He could not make it because of the Governors' Conference, and I presume based upon conversations with him, that you are also here speaking for the Governor in terms of this status?

Mr. Reynolds. That is correct, Senator. And the Governor very much regretted that he had this irresolvable conflict. He would very much have liked to have been here this morning as chairman of the council.

Senator Domenici. Thank you very much.

Mr. Reynolds. As directed by the Congress, Mr. Chairman, the study will give attention to measures for augmentation to provide water supplies adequate to continue the irrigation dependent on the declining water resources of the Ogallala, including the transfer of water from adjacent areas and measures to conserve water, thus extending the productive life of the aquifer.

The study will also give attention to opportunities for the diversification of economic activity in the High Plains, from irrigation to enterprises requiring lesser amounts of water. As the legislation requires, studies of the work needed and the ramifications of transfer of water from adjacent areas is being done by the Corps of Engineers.

The period selected for study is from 1977 through 2020. Results to date indicate that about 12 million acres were irrigated in the High Plains in 1977. There were more than 30,000 irrigated farms in the region with cash receipts from agricultural commodities of more than $20 billion annually.

Over 21 percent of the total U.S. agricultural exports by value are produced in the region, including 40 percent of our cotton exports, about 40 percent of wheat and flour exports, and 25 percent of the feed grain exports. The international importance of the productivity of the High Plains region seems obviously profound.

Projections indicate that by 2020, 13½ billion acres will be irrigated with ground water in the High Plains. Aggregate wheat production will be greater by nearly 50 percent. Both corn and cotton production will be greater by nearly 100 percent by 2020. And these data can be seriously misleading for several reasons.

First, a substantial part of the projected increase in production is attributable to necessarily uncertain projections of improved farm and irrigation practices and improvements in plant species from research.

Second, because of the more extensive water supplies and good aquifer recharge characteristics in Nebraska, increases in irrigated acreage in that State are projected to be enough to offset the nearly 6 million acres that will be removed from production or reverted to dryland farming by 2020, and bring the total irrigated acreage in the region to about 1½ million acres more than it was in 1977.

Third, from the study result to date it is apparent that essentially all of the acreage that will still be in irrigation in 2020, including the projected substantial increases in Nebraska, is based on ground water mining. And it is certain that the crunch will come for the region as a whole shortly after 2020 unless some action is taken.

From the foregoing, it is clear that the ground water mining problem is not regionally uniform, nor is it uniform within each State. In New Mexico we were irrigating from the Ogallala and associated aquifers in eastern New Mexico 413,000 acres in 1977. It is projected that that acreage will decline to about 184,000 acres, or 45 percent, of the 1977 acreage by 2020.

In Lea County we were irrigating 85,000 acres in 1977, and that acreage is projected to increase to 90,000 acres by 2020. In Roosevelt County we were irrigating 109,000 acres in 1977, and that acreage will decrease to 37,500 acres by 2020. In Curry and Quay Counties we were irrigating 168,000 acres in 1977. That acreage will decline to 67,000 acres by the year 2000, and virtually all of it will be out of production by 2020.

Senator ABDNOR. Could I interrupt you?

Mr. REYNOLDS. Yes, sir.

Senator ABDNOR. Any big reason, is it the location of it, or other industrial takeover, or what is the big reason for the shift?

Mr. REYNOLDS. The shifts are the result of decline in the water economically available for irrigation. Those are the decreases.

Senator ABDNOR. Will, the water table be higher in some areas than others?

Mr. REYNOLDS. There is more water in storage in some parts of our east side than in others, and farming is more intensively engaged in. For example, in the Clovis area than in the Hobbs-Lovington area in Lea County. Just differences in current practices and the availability of water, Mr. Chairman.

Senator ABDNOR. Thank you.

Mr. REYNOLDS. The original High Plans study outline contemplated study by the States of the potential for locally augmented water supply by weather modification. Since then, the general contractor has determined that weather modification technology does not offer sufficiently significant and dependable sources of additional water supply for irrigated agriculture to justify an in-depth study. And that conclusion is consistent with the conclusion of the Amercian Meteorological Society on weather modification that was published in the January issue of the bulletin of that society.

It's the position of the society that the science of weather modification is largely still in the stage of exploratory research and experimentation. At this time we can't reasonably rely on weather modification in planning for augmentation of the water supply of the High Plains States.

The corps currently has under consideration four possible routes for importation of water from the Missouri and Arkansas Rivers and other Mississippi River and gulf tributaries to the High Plains region. The amounts considered for importation range from 1 million to as much as 8.8 million acre-feet annually, with the total first cost ranging from $3.4 billion to $30.3 billion.

The repayment costs, including the interest, amortization, pumping costs, range from $270 per acre-foot to $740 per acre-foot. I think it's evident that without a drastic change in the relationship between farm prices and farm costs, the prospective water users would not be able to save the cost of imported water.

The study report will, of course, address the national interest in the preservation of the agricultural production capacity of the region in terms of projected food and fiber requirements for the Nation, the balance of trade, and the national defense. It remains to be seen whether the national interest would justify a substantial Federal subsidy for any of the importation projects under study.

Senator Domenici. Will that be done also, Steve, by the time the report is due?

Mr. Reynolds. Yes. It is expected that it will be.

Senator Domenici. It appears to me when an interim report was given in Washington on this that national level impact was not discussed.

Ms. Williams. That's correct. The results that were available at the congressional briefing in February, which I believe you attended——

Senator Domenici. Yes, ma'am.

Ms. Williams. We had available to us at that time the results of the baseline strategy which we are looking at as one of five alternative scenarios for the future. We had not at that point reached the stage in the study where the regional impacts could be aggregated so that the national interest could be identified. But that will be a part of the final draft report.

Senator Abdnor. Wasn't there some figure tossed around at that meeting of $800 per acre-foot?

Ms. Williams. That was a figure that the corps presented, I believe as the upper bound of the cost of the routes that they were looking at.

Mr. Reynolds. Those numbers have been somewhat changed as a result of further study since the congressional briefing in February.

While these economic problems associated with the potential projects for importation of water to the High Plains are obviously very difficult, they are likely less difficult than the political problems associated with such projects. The High Plain Staters are well aware that when some arid States begin to look past their borders for supplies beyond their current entitlement, their neighbors obviously have a legitimate cause for concern.

States with apparent surpluses of water jealously guard their futures. Nonetheless, given the economic and political interdependence of the States involved, the almost certain dramatic increase in world demand for food and fiber, such projects may become practical, and continued exploration of the feasibility of importing water to the High Plains from adjacent areas, as the legislation provides for, is fully justified.

In January of 1980 the High Plains Council adopted its resolution No. 6 on interbasin transfer concepts and assurances. A copy of that resolution is attached to my statement, Mr. Chairman, for convenient reference. The resolution emphasizes both present uses and prospective future needs for the foreseeable future in the States of origin of surplus water must be considered as having prior rights to the water involved.

An objective of the High Plains study is to formulate a project which would yield benefits or at least avoid any detriment to each of the affected States. When the corps study has advanced a little further, the High Plains Council, probably through its liaison committee, will arrange meetings of the representatives of all the potentially affected States to insure that all foreseeable detriments and opportunities for benefits have been considered and that measures are included in the plan to avoid those detriments and maximize the benefits.

While it is clear that preservation of the agricultural production capacity of the High Plains region will not be possible without importation from adjacent areas of surplus water supply, and that there are difficult economic and political problems associated with the plans for such importation, it is equally clear that aggressive conservation measures could substantially extend the life of the supply from the Ogallala aquifer. The energy for about 80 percent of the irrigation pumped in the Clovis area is provided by natural gas. In 1970 farmers in the Clovis area were paying 72 cents per thousand cubic feet for gas. By 1980 that price was $2.02 per thousand cubic feet.

About 3 years ago, several of the better farmers in that area told me that because of rising energy costs that would have to be their last year of irrigation farming. The farmers as a group are the most resourceful people I know, and they're still irrigating this year. The farmers have met rising energy costs by improving their irrigation techniques, changing cropping patterns, or generally in more careful management in their farming.

It's important to recognize that the individual farmer is appropriately more short-sighted in his investment and conservation measures than should the State and Federal Governments be. The individual farmer cannot be expected to invest in conservation measures unless he can realize the net benefits from those measures in 10 or perhaps 20 years; while the Government is appropriately interested in measures that may not yield benefits for several generations.

The national interest in extending the life of the overall aquifer may well justify accelerated depreciation or other tax relief measures, increased emphasis on the technical services program, the Soil Conservation Service and Federal subsidy for conservation measures in programs such as that of the Agricultural Stabilization and Conservation Service.

The High Plains Study with the incidental exchange of information and ideas has already led to actions in New Mexico directed toward conservation of the Ogallala aquifer. The Interstate Stream Commission encouraged and has agreed to fund the development of a mobile laboratory by Water Resources and Research Institute to visit farms using Ogallala formation water to determine the efficiency of irrigation pumps and motors and irrigation water distribution systems, and to advise the farmers with respect to corrective conservation measures, including irrigation scheduling.

Since 1976 the Interstate Stream Commission, using funds from the water resources research conservation and development fund which it administered, has subsidized conservation research principally by the Water Resources Research Institute to breed species of alfalfa less water-demanding than those currently being grown, and guide crop selection and irrigation practices. The commission has granted State funds in the amount of $395,000 for such research and has helped to arrange for the use of $105,000 of Federal Water Resources Council and Four Corners Regional Commission funds in the work.

Mr. Chairman, the opportunity to present this statement on the High Plains study on behalf of the State of New Mexico for consideration by this distinguished committee is very much appreciated.

[The resolution referred to by Mr. Reynolds follows:]

HIGH PLAINS STUDY COUNCIL RESOLUTION NUMBER 6

Interbasin Transfer Concepts and Assurances

January 16, 1980

Whereas the legislation authorizing the Six State High Plains-Ogallala Aquifer Region Study (P.L. 94-587), directed the Corps of Engineers to conduct a study of alternatives for transferring water "from adjacent areas" into the High Plains-Ogallala Aquifer Region; and

Whereas P.L. 94-587 requires that if such water transfer(s) are found to be a part of "a reasonable solution," the "Secretary (of Commerce) ... shall include a recommended plan for allocating and distributing water in an equitable fashion, taking into account existing water rights and the needs for future growth of all affected areas;" and

Whereas the Corps of Engineers, under separate agreement with EDA, and the General Contractor under Study Element B-1, are now cooperatively pursuing the technical aspects of alternative water interbasin transfer possibilities, both intrastate and interstate;

Now therefore be it resolved that (1) the interbasin transfer study element is of significant importance to the High Plains-Ogallala Aquifer Study both within and without the High Plains-Ogallala Aquifer Region; (2) P.L. 94-587 requires such interbasin transfer study; (3) there is need to provide a friendly and equitable understanding of these studies among the six states involved, those states from which potential transfers might be considered and those through which possible conveyance aqueducts(s) would pass; and that (4) the High Plains Study Council is stating the following diversion concepts and assurances:

(1) The present uses and prospective future needs for beneficial purposes for the foreseeable future in the potential basins(s) of origin of surplus water will be considered as having prior rights to the waters involved. Likewise, present uses from and prospective future demands on the stream(s) concerned in those areas of the exporting state(s) outside the basin(s) of origin in accordance with state water plans, will be considered as having prior

rights. Only those amounts of water estimated to be surplus to those present uses and future needs will be recognized as being potentially available for exportation to the High Plains-Ogallala Aquifer Region.

(2) Existing compacts, water rights, contracts and commitments will be considered to remain in effect in estimating exportable surpluses.

(3) Future upstream depletions and future downstream flow requirements for instream uses will be estimated in calculating potential surpluses. Instream uses to be considered include but are not limited to fish and wildlife, navigation, quality control, hydropower generation, recreation and esthetics.

(4) State water plans for downstream states for development and utilization of the waters of the stream(s) involved will be taken into account.

(5) Needs of potential exporting states for early project development on the stream(s) involved for instate purposes will be examined in discussions with those states, in terms of compatibility and possible integration with a water transfer system. Where feasible, early financing and equitabl cost sharing of such projects will be considered as a part of any interbasin transfer plan. The possible integration with existing systems(s) will also be investigated.

(6) The possibility of integration with existing and prospective wate esource systems within the state(s) through which an interbasin transfer aqueduct would pass, will be explored, including the potential for equitable cost-sharing and for joint financing of future projects.

(7) Where there appear to be potential benefits to be achieved, discussions will be held with states of origin, concerning possible exchanges between and among hydrologic systems. Consideration of such exchange would accord full recognition of water rights in making water available for export.

(8) No interbasin transfer will be recommended for the High Plains-Ogalla Aquifer Region except on the basis of full and frank discussions with potential exporting state(s) and other states directly involved of all relevant issues of water availability, equity, present commitments, mutual benefits and assurances considered necessary by such state(s) for protection.

Be it further resolved: (1) that these concepts and assurances will provide the framework for the protections required by P.L. 94-587, and will provide the basis for initiation of discussions of diversion alternatives with the states from which water export may be considered and other states that might be involved; and (2) that the Chairman of the High Plains Study Council, in close cooperation with the Secretary of Commerce or the Secretary's designee, and the Secretary of the Army or the Secretary's designee, with the counsel, advice and assistance of the General Contractor shall contact affected states and initiate technical discussions of these interstate transfer studies on the basis of the concepts and assurances stated herein.

Senator **Abdnor**. Well, thank you, Mr. Reynolds, for that very fine testimony. Ms. Williams?

STATEMENT OF JEAN O. WILLIAMS, VICE PRESIDENT, CAMP DRESSER & McKEE, INC.

Ms. **Williams**. Thank you. For the record, my name is Jean Williams. I am with Camp Dresser & McKee the prime contractor for the High Plains study, and I am project manager for the State.

It's a little difficult to follow a statement by Steve Reynolds because he tends to cover all the points that I had planned to cover. But I would like to discuss some of the aspects of the study that I believe are unique and that from the standpoint of this committee might merit consideration in examining regional problems elsewhere in the United States.

As Steve pointed out, the study has been conducted by a private consortium. We have contracts with each of the six States in the High Plains area through which the States themselves are conducting vital parts of the research that will go into the study final results.

The several Federal agencies, the Corps of Engineers, U.S. Department of Agriculture, and others are contributing directly to the final results of the study, and the interesting thing that we are finding is that although there are so many players involved, the study itself is extremely complex, it is a long study—it is going to be completed on schedule and within budget.

I think the initial legislation came into being because of the awareness on the part of the States and on the part of the Congress that people of the High Plains region face an uncertain future. Diminishing water resources, decreasing oil and gas reserves, greatly increased costs. It was concern over these adverse aspects and the results of economic, environmental, and social implications to the people of the region, the States, and the Nation, that prompted Congress to authorize and fund the States.

Senator **Domenici**. Ms. Williams, I want to tell you that it's very generous of you to give Congress such credit for having such great wisdom, but it's really not halfway true. This is just the result of frustration when we couldn't find any way to do this. And at 4:30 one afternoon Senator Bellmon and I put a very simple little amendment in this bill, and we had no idea how it would be put together but just said, "Enough time has passed."

I don't believe there was a significant hearing on it, Steve. I mean, everybody was aware of Ogallala. I really don't think anyone had an oversight on how we ought to solve it. We just said, "How many dollars is necessary?" And the only vehicle we could find was to tack it onto an EDA bill, and we thought that we ought not do it all.

Fortunately, that committee had the Corps of Engineers jurisdiction, too, so we ended up with EDA and the corps. I would have to compliment everyone involved though. It's just a little skeleton, but the way it has been put together, the way the States got involved—they were mandated to be involved, but it really is gratifying that we did see all the different agencies pull together and do something that it seems to me has a minimum of bureaucracy and a maximum of "Let's get some answers."

And whoever was involved, I compliment them all, but I do want to make sure that you, as a student of all this, understood how it all got done.

Ms. Williams. Well, I would say that as the general contractor we tried to find a legislative history which should have been easy to find. It was slim to none.

Senator Domenici. It was slim; that's the truth.

Ms. Williams. I would like to spend just a minute to identify, quite briefly, the objectives of the study as they are laid out in the legislation because I think they're important and the objective of the study as they are identified by the High Plains Study Council. They read as two sets of objectives, but it's readily apparent that the same long-term objective was guiding the entire effort. The law identified those objectives as to: One, assure adequate water supplies to the area; two, assure an adequate supply of food to the Nation; three, promote economic vitality of the High Plains region; four, develop plans to increase water supplies in the area; and five, assure continued growth and vitality of the region.

The council stated its objectives a little bit differently: One, to determine potential development alternatives of the High Plains; two, identify and describe the policies and actions required to carry out promising development strategies; and three, to evaluate the local, State, and national implications of these alternative development strategies or the absence of these strategies.

Early on in the study we, with the advice and direction of the council, developed the strategies which would be the basic framework that would be the areas in which all of the analogy by the States and by the general contractor for the region would be framed.

First, of course, there is the baseline condition which is that condition which would prevail in the High Plains assuming no positive new programs or actions at the State or Federal level. Then there are five water alternatives, water positive alternatives.

The first is a water demand management alternative which will encourage users to practice conservation through application of proven technologies and provide incentives to the farmers to conserve.

Second, water demand management strategy would require the application of all advanced water and agriculture management technologies identifying necessary mandatory constraints on use of water.

The third involves local water supply augmentation. We're looking at the possibility of enhanced recharge, weather modification, desalting, land and water banking which would involve increasing research of the brushy areas in the High Plains and using that essentially as a waterbank. All the techniques and technologies that are used that we can identify through world research and world application that might have some relevance in this area.

The fourth alternative strategy is a subregional intrastate importation alternative. In the High Plains area there is a possibility for intrastate-interbasin diversions in Nebraska and Oklahoma and Texas. The other three States have not found within their borders an opportunity for an intrastate diversion to the Ogallala area that would serve to augment the supplies available in that area.

Senator DOMENICI. How significant is the possibilities for the three States that you have identified?

Ms. WILLIAMS. It's quite a significant possibility in Oklahoma, quite significant in Nebraska, less significant in Texas. Although there is some possibility of combining the Oklahoma and Texas import routes to western Oklahoma and west Texas and eastern New Mexico, and achieving through that combination some economics of scale and perhaps some mixture of the rather saline waters of the Red, still achieving the quality that might be suitable for irrigation purposes.

Finally, there's the major interstate importation supply management alternative which the Corps of Engineers is examining in cooperation with the general contractor and Steve covered the salient points of that major enterprise and the corps will be preparing its report on the alternative it's looking at.

In addition to these alternative strategies, the general contractor is examining nonagricultural development opportunities for the region. In the analysis of the five water resource alternatives, these nonagricultural development potentials are being analyzed to determine the extent to which they might provide economic activity equal to the incremental difference between present economic levels and possible future diminishing economic activity in the agricultural sector.

Desalting, under strategy 3, has been of special interest here in New Mexico because very substantial amounts of brackish in saline water. Current technology does not appear to offer promise of large-scale conversion of these resources for agricultural uses. Energy costs for processing and enormous problems associated with disposal of residual brines are key constraints. However, we are looking at desalting as a possible means of supplying nonagricultural development that may be identified as having potential for the future of New Mexico.

Desalting might also have some possibility and this is one that perhaps will come after the High Plains study, as unique to New Mexico.

As a means of supply municipal and small industrial needs with the possibility of exchanging water now being used for those purposes for agricultural purposes how great an opportunity that is we don't know.

Additional water demand management through conservation, water use efficiency technology, and local water supply augmentation practices could be initiated at a relatively early date, certainly by 1985. This would provide a means of early-on putting on-the-ground action so that it would tend to ameliorate the diminishing water supplies in the Ogallala. A High Plains Study Council presented a recommended early action program for initiation of this type of action to Congress in the briefing held in February of this year.

Water demand management is already quite widely practiced throughout the High Plains region. In many of the practices that have been identified as having particular relevance to the High Plains area would require rather heavy, for an individual farmer, frontend costs in terms of capital development. They're relatively low cost but for an individual farmer $10,000 for new equipment is a lot of money. One of the suggestions in the early action program which was presented to Congress was the possibility of low interest loans to individual farmers to existing USDA programs to help out with some of that front end financing in order to get these types of conservation measures into practice on a wide spread scale throughout the High Plains area.

Senator DOMENICI. You heard our first witness say that that has salting risks.

Ms. WILLIAMS. It does certainly, that's quite true and whatever kind of water management practices are instituted in the High Plains would require what the water resources council has always described as water resources related to land resource management. But, on the other hand the rate of movement recharge at the Ogallala is so slow that while there would be local concern with various types of particularly with heavy soils with salting of those soils. It's my own feeling with proper management the extent to which such conservation practices could be applied in the High Plains, could be initiated and conducted without serious regional adverse affects.

Senator ABDNOR. Let me ask you this. Mr. Reynolds mentioned it. There are some irrigators here today who question how long they can continue with the high cost of energy. There's no reason to think energy is going to get any less. I happen to be a farmer. I've been farming all my life. Ever since I was a kid I heard we were going to eat our way out of the surplus. I'm not so much of a believer of that anymore now that I see Brazil and Argentina coming out and all the other countries even India exporting grain and we're helping those countries to develop. With everything in the proper perspective, is there anyway you can conceive farm prices being great enough to pay this extra high cost of production? Food's going up but certainly not because of farmers causing that food to go up. They're going to farm the ocean some day and so I'm just wondering when you look in the long view, do you really think it's going to be possible to make this pay off? I think one reason we export 43 percent of everything we produce today to foreign markets is competition with other countries. We had quite a problem here when we quit exporting to Russia, prices have dropped. As I listen to all of this and what you said earlier about high cost of irrigation I think all these other costs are included with it, it makes you wonder how feasible it really is. It is getting more and more difficult to find interest in subsidized programs. So, then the picture overall doesn't look that pretty at the moment, would you agree?

Mr. REYNOLDS. Given projections, I see with world demand, I think one must agree that it's possible that there will be a sufficient adjustment between farm prices and farm costs to make it economically feasible. Another point is we have, as I've indicated, made projections with respect to gas production in New Mexico and these in the current reports look pretty complete. I checked with our oil and conservation division getting ready for this occasion. They say the recent results in drilling in New Mexico may bring about an adjustment in those projections. These I saw on TV just yesterday indicated there are some experts who think that we can expect increases in gas production and a life of our gas resources extending for beyond many of the current estimates. So, it's possible even that your energy gas, your gas driven energy costs will reduce.

Senator ABDNOR. Natural gas will probably be the greatest hope.

Mr. REYNOLDS. As I've indicated, what most of the farmers in the Clovis area rely on is gas and there is some hope that those prices may decline at the future.

Ms. WILLIAMS. There's one other comment I would like to make with respect to that question too. This study will be useful to decisionmakers, on both State and Federal levels because where we do have, as we have here a major regional problem which is beyond the resources of individual States to cope with. We also, as the result of the State, will probably have the best information that could be made available through those decisionmakers at the State and Federal level projected to 2020 which show pretty conclusively that the region is not going to fall off a cliff at the end of this decade. It will, in fact, maintain a pretty good agriculture economy for the State. But, it's going to fall off a cliff as far as reserves of ground water is concerned, pretty rapidly thereafter. But, this gives you time, this gives all of us time to make a determination as to what the national interest in the preservation of this agriculture economy, first, what it is; what it should be; and what actions could be taken and some of those actions will be long-term actions.

Senator ABDNOR. Good. I think I'm going to call on Dr. Lansford. Why don't you proceed before we continue on with the question.

STATEMENT OF ROBERT R. LANSFORD, PROFESSOR, DEPARTMENT OF AGRICULTURAL ECONOMICS, NEW MEXICO STATE UNIVERSITY

Dr. LANSFORD. OK.

Senator DOMENICI. Doctor, before you do, let me ask you, when you look at the Ogallala absent Nebraska, in terms of how much major crops we produce in the High Plains, what is the relationship between nonirrigated to irrigated in the agrabasin that we call Ogallala?

Dr. LANSFORD. If you leave out Nebraska, of course, we have a major dry land area, Texas, Oklahoma, Kansas with wheat and grain crops. I don't recall the percentage, but it was almost half and half including Nebraska. It was about 50-50 so, it's probably a little more dry land than irrigating. Is that right, Jean?

Ms. WILLIAMS. Certainly.

Senator DOMENICI. Doctor, the dry land yields significantly less?

Dr. LANSFORD. Oh, significantly less?

Senator DOMENICI. Cost significantly less?

Dr. LANSFORD. Cost significantly less

Senator DOMENICI. Is there a relationship between the two? Would you get irrigated fall off if a farmer mixes the two, or are they totally unrelated?

Dr. LANSFORD. I think Kansas probably does more than any other State in the Ogallala region. There are some States that have dry land and irrigated farms together.

Senator DOMENICI. So, you would not suggest that dry land would drop off substantially?

Dr. **Lansford**. It would probably increase. In fact all the studies indicated dry land farming increases almost on a one-to-one as irrigation drops out across the region. In New Mexico we have a slightly different thing. You were talking about prices and what's going to happen. We had used the U.S. Department of Agriculture NIRAP model in this. The NIRAP model has been, shall we say, "bad mouthed" pretty badly for the past several years. There was some concern and I had some concern when they used it initially. Now, there are studies coming out that is supporting NIRAP, a private consulting firm out of Washington recently did this study.

Senator **Abdnor**. Doctor, what is NIRAP?

Dr. **Lansford**. National Inter-regional Agriculture Production. It's a computer model to project production prices either in the near term or long-term. I believe this study had great impact on the work to develop the long-term capabilities of its projection. So, really it does basically two things, it looks at supply and demand for 22 major commodities. It's world, national, and regional and then they break it down to the State. I think in the end we were fortunate to have this.

There's one thing about it, everyone was shocked when the prices came out. We looked at it very closely. A highly acclaimed consulting firm, very specialized in agriculture exports, did a study and they came out with very close export demands or projected export demands for the commodities we were interested in in about the same time period. Also, some preliminary results of a study that's underway in the State of Wyoming come out very closely in livestock. There's been hence some other studies that tend to back this up.

For example, in New Mexico in 1977, the value of an acre foot of water is about $15. That's what farmers could afford to pay, or approximately $130 per acre. In the year 2000 we would pay $100 per acre foot for imported water.

In the year 2020 and realize these are 1977 dollars, the price of corn would be about four times what it is in 1977.

Senator **Abdnor**. Why does it take them 20 years to get wheat to where it is today. I'm getting the same for wheat I did 20 years ago.

Dr. **Lansford**. In the past couple years it's gone up. In New Mexico, some durum type wheats have doubled, have almost tripled and as soon as the export demand catches up for other varieties of wheat, we'll probably see it tripled. There are two things that this is based on, a continued expansion for export market which takes a minimum row based since we became an agriculture exporting country, NIRAP sort of took the middle-of-the-road approach, it's not the highest or the lowest projection.

The other thing is that, as Jean mentioned, and as further detailed in her paper, is that there has to be a rather large expenditure for agricultural type research. I think that as Steve has mentioned and I think Tom Bahr will mention, we in New Mexico are very proud of the fact that we've done some outstanding work in alfalfa where we reduced the water applications by half or water requirements by half on alfalfa and only decreased yield slightly.

Another, I think classic example, is some work being done in the State of Illinois where they're crossing wild grass with corn. This corn doesn't look much like corn but they are getting up to 16 ears on this grass and this has been sort of a sideline. I think that if we put major moneys into programs such as this, we could really increase our production in corn drastically and there are other examples of this conservation reduction in water resources required and cut our depletions of our Ogallala Aquifer drastically through an accelerated research program. I do think that we need to increase our budget for agriculture experimentation, water resources research institutes, and the agriculture research service of U.S. Department of Agriculture.

I'm very sorry that research on wind energy has almost been cut out because it has some potential for irrigation pumping in some areas of the High Plains. Other than that I'll let the other written portions of my statement stand unless you have questions on them.

Senator ABDNOR. I guess I keep thinking about four times the price of corn. Who can afford it? We are going to have to sell overseas to a lot of underdeveloped countries, somebody's going to have to pick up the tab. I'm trying to be realistic on this. What would a corn fed steer cost at $12 a bushel?

Dr. LANSFORD. Many of us, in the West, were a little bit concerned. NIRAP projects the demand for fed livestock is going to go down and I think it's because the feed and food grain prices are rising drastically.

They're having rapid population increases in developing countries, Third World countries and those that are underdeveloped.

Senator ABDNOR. A bushel of grain may be breakfast food, it goes 10 times further than a bushel of grain goes to a cow. That's the way we're going to go, make food go a long way. I hope your right. I'm a farmer, I'd like to make some money on it.

Dr. LANSFORD. We say that about 1990 things are going to turn around. We always project far enough out to where people don't catch you, but it's not that rosy in the middle eighties. The reason is that we project energy prices to rise drastically until about 1990 and then it is projected to level off and it's after this period that we're going to see these rapidly rising prices of these agriculture commodities.

Senator DOMENICI. Well, it seems to me, doctor, the rapidly increasing yields and the rapidly increasing market value would not, looking at America as a whole, necessarily extend the longevity of this diminishing aquifer. You were talking as if, unless I'm misreading you, as if its longevity is enhanced. Does not the increased productivity per acre and increase cost bring into play more production in those areas of the country that don't have water problems?

Dr. LANSFORD. This NIRAP model does take into account the whole Nation and to some degree the whole world, but basically it's a national model so we're saying that corn yields increase and wheat yields increase and Milo increases, that's clear across the Nation, so, the high plains is a major contributor of feed and food grains, but the other States, Iowa, Illinois also produce corn and we expect that those States as well will increase. In fact, a lot of the basic research in corn is going on in Illinois and Iowa, our traditional corn producing States. I'd like to stress again the research angle, even our baseline includes accelerated research; is that right, Jean?

Ms. **Williams**. Right.

Senator **Domenici**. Let me ask you, doctor, you have always been a strong proponent of more agra research. I don't know whether that makes you a strong proponent of the U.S. Department of Agriculture's overall research program and I don't know that I want to burden this record with that, but, it would appear to me that you are also suggesting that we ought to zero in on agra research directed at better utilization of water in the production of products; am I reading you right?

Dr. **Lansford**. Well, I think this is a major area in the Southwest and the high plains and offers great promise. I'm an economist as well and it's in the Sun Belt States where we're seeing rapid population growths. We're in the energy belt. Agriculture is going to have to give up water. I think we all can see that. The gentleman that testified earlier, I think he said it diverts or depletes around 90 percent of the water and I agree with that. Now if somehow we can get this down to 80 percent and gain this 10 percent, I think we can do it through a major plant breeding program, for water reduction at the same time I think there's some opportunities for yield increase. I think a breeding program, a major genetic engineering if that's what you like to call the program is in order, in my estimation, I think we have to look at social and economic impacts.

Senator **Domenici**. We're not doing very well in that area now nationality.

Dr. **Lansford**. Oh, I think we're doing quite a bit. I would just like to see us accelerate this program, this wild grass and corn. They've been playing with this in Illinois for 15 years, but, it's been on a very low level. You know, Steve talked about Betty Milton and Marvin Wilson's work with alfalfa. We've been giving safe moneys, a little bit of WRC, title 3 type moneys, a little four corners money and probably a little agriculture States moneys but we haven't put major efforts in that. We could accelerate that program and I think that's what we need to do in our Ag type of research.

Senator **Domenici**. Well, I've heard some of your counterparts from Arizona say the whole area of crop alternatives, is a little slow to catch hold in the Department of Agriculture.

Dr. **Lansford**. Well, I'm not sure about this. I'm not a plant breeder; I'm an economist. I think it is true that we tend to not put money into some types of research. There is a weed, the Kosha weed, that the Forest Service plans to use to help control erosion. I think there are real opportunities to convert that into a cattle feed with some research. Our whole area of ball-bearing and rubber-bearing type plants, I really don't think we've seen, in my own opinion, the necessary USDA and ARS-type support of that. I think our State agriculture experiment station, water institutes, and other State agencies have been supporting this and I think it's time the Federal Government supported this. I think it's a Federal program, not a State program.

Senator **Domenici**. I don't think there's any question that that's right in the area of Wyoming, for instance. It's been like pulling teeth to get interest in the Senate to put Ag and EPA in it, as you recall. Finally, they're doing it together, but they're really not terribly enthused. Let me leave that and ask you, when will you have some results, Jean, that equate this problem to its national significance in some kind of economic terms? That wasn't ready last time and yet the law requires it and I know you're going to do it.

Ms. Williams. We'll have a draft report that will go out for public review November 30. The regional aggregation of the State research and the regional research itself will be completed along about September 15, which will give us from the 15th of September to about the 1st of November to get our report drafted and get it to the printer and have it out for reviews, so preliminary results will be available by about the 1st or the 15th of September. The report itself will be available which puts, hopefully, our research results over the proper perspective by November 30.

There was a meeting of the High Plains Study Council scheduled for August 4 which was here in Santa Fe, which was interrupted by transportation problems involving the air industries and so the meeting was canceled. We're putting together now and we'll have prepared by the end of next week a combination of all the research results to date that are presented to the liaison committee which we're going to be sending out to the council members. We can provide this committee a copy of the results when they're completed.

Senator Domenici. One of the mandates was that where there was going to be economic transitions of a significant nature that this study revealed the alternative economic prospects. I'm reminded that people from Portales, which is Roosevelt County, were talking with me and they're already suffering from the diminished agra base and they don't seem to have a great deal of hope as to what will take its place. So, will we know how the study is going to address that kind of issue?

Ms. Williams. Well, the study area has been divided into subregions within each State. The several alternatives which were discussed earlier including the nonagriculture development alternative are being aggregated by those State regions as well as by State and for the region as a whole. I will anticipate that within a given subregion, some mix of several of those alternatives are probably going to be the best answer. And some of the subregions, Senator, I would have to say that there's not a very rosy picture for the future. Unfortunately, the High Plains doesn't have a lot of resources; principal resources are its land, water, and climate and those resources lend themselves to agriculture but it's a little hard to translate into nonagriculture-type enterprises. I agree wholeheartedly with some of the things Bob has been saying about the opportunities through various types of research that are underway in various places for types of dry land crops that perhaps could be brought into this region that have not been extensively used in the past.

These we'll speak to in the report. There are two regional study elements—one dealing with precisely those issues; another dealing with the transitions forming which I think will be useful in pointing the way toward what can be done in the areas where you're simply out of water.

Dr. LANSFORD. Senator, in Roosevelt County, for example, in our State study which the State has put some money into, we have broken Roosevelt County down into the Black Water Draw Area which is the Sand Hills; we've broken the Portales Valley into a Portales East and a Portales West based on hydrologic conditions provided by the city of Portales, and then our little areas in the area, so we will have projections of when each of these sub-areas within the county will run out of water in a State level report that will be much more detailed than what the regional overall report will be.

Senator DOMENICI. When will that report be ready, Doctor?

Dr. LANSFORD. We're shooting, I believe for March 31 for the draft report?

Mr. REYNOLDS. That's my recollection, Senator.

Dr. LANSFORD. With State level, that's going to be much larger. In fact, I think we're still in the State of New Mexico. Whether we're going to have individual county reports, I'm not sure but we hope to have some draft reports out along the end of the first quarter year.

Senator DOMENICI. Will you be sure, that we get briefed on that and advise us? We surely would like to know county by county how that looks at the end product we're looking for. Steve, how will that be disseminated? How will you do that?

Mr. REYNOLDS. Well, at the stage that I was talking about, I would think that he could furnish those copies. We anticipated that there will be, in the period from December 1 to January 15, opportunity for public review; of at least a summary of this report, and, hopefully, arrangements for public meetings in that period where the public has an opportunity to have input to the final product.

Dr. LANSFORD. I think we planned to publish this detailed report to the water institute down in New Mexico State. So, it will be available, but, we would be happy to provide copies to you for review and as Steve said, we will have meetings out in the affected areas on the east side of the State.

Senator DOMENICI. I guess this is for you, doctor or for Jean. Will the national evaluation address an issue such as survival of the Ogallala versus balance of payments internationally?

Ms. WILLIAMS. We'll certainly make an effort in the final report to identify those public policy issues which are surfacing as a result of the analysis of the impacts felt in the Ogallala region. It's not an evasive answer. We won't have answers for all of the questions but we will make an attempt to raise the questions that we see as confronting both the Nation and the States in the field of public policy which will have to be addressed either by not addressing them at all which says one thing or by looking for solutions and answers to them. A part of the package which will go out to the High Plains Study Council this next week and which we'll transmit to you is the identification of seven public policy issues which we feel involve very critical questions of the Federal interest and the results of this study.

These public policy issues have been transmitted to undersecretary Geonelli at his request as a part of his consideration of national water policy and the work of his career, and it will be transmitted, as I say to the council and to this committee also.

Senator DOMENICI. In each case when you evaluate a possible ameliorating activity partial or otherwise, I assume you will also give us an analysis of what will happen, one alternative will be to do nothing in each case, is that correct? That will tell us where we'll be if we don't improve conservation dramatically, will show us where we'll be if we do not have importation and we do not have a base. In each one we'll have a base line that's no action?

Ms. WILLIAMS. That's correct. That is true of the State reports and the regional reports.

Dr. LANSFORD. But the no action does consider an accelerated research program in my estimation.

Ms. WILLIAMS. But, if we identify the base line this involves no new Federal policies, Federal or State policies and programs. The research will be accelerated because many of these research activities are in place.

Senator DOMENICI. I see. OK, so you'll have kind of current law trend line on research built into the no action, is that correct?

Ms. WILLIAMS. Right.

Senator DOMENICI. Steve, just what kind of impact could we really have if we had an acceptable conservation to the max? Are we really talking about something that will work or not?

Mr. REYNOLDS. It's a difficult question, one has to be very careful. I agree with most of what Dr. Bredehoeft had to say this morning about conservation, that is, you can improve irrigation deficiency without saving any water and what you should look for are ways to save water. You need conservation measures such as low pressure sprinkling instead of the high pressure sprinkling. That will actually reduce the consumptive use, that is, irrigation deficiency is computed as the evaporation from the wet soil associated with the irrigation and the transpiration by the plants. Now, in sprinkling, of course, you can lose a lot of water into the air and that becomes part of the numerator in the deficiency equation. So, and very important here, is that there be a reduction in the amount of water the farmer has to apply to save his energy cost. Now, he can actually, this is what the doctor was saying this morning, can actually improve his irrigation without saving any water, you can improve his irrigation deficiency just by simply reducing the amount of deep percolation that returns to the aquifer and therefore is not lost, but he can save a lot of money if he can improve the irrigation deficiency with gas at $2 a thousand.

One has to be very careful in thinking about conservation, to separate those concepts. I would suppose that one would be optimistic to think of much more than a decade or two to be achieved by conservation. And I think two decades would be a little secondly.

Senator DOMENICI. Do you agree, doctor?

Dr. LANSFORD. I agree with him, yes.

Senator ABDNOR. You think the Federal Government is going to have to take a lead in establishing powers and conservations?

Mr. REYNOLDS. Gentlemen, I think if you want to achieve the maximum extension of life through the base of true conservation, Federal subsidy in one form or another will be essential. But, I don't think that the farmer can afford to maximize conservation measures to the extent that would be in the public interest because it won't be in his private interest to spend his money beyond a certain level.

Senator DOMENICI. From what you know now about the study, obviously we're going to get a lot of very excellent information and some very significant policy options. As far as the east side of New Mexico, are we going to get any real implementable suggestions that we can do in the next 5, 6, 8, 10 years?

Mr. REYNOLDS. I've forgotton who it was addessed to.

Senator DOMENICI. Either of you.

Mr. REYNOLDS. As I tried to indicate there are some things we've already undertaken to try to improve the situation. The only way you're going to continue the productivity, the land being irrigated from the Ogallala is by importation. Now, you can stretch it out, extend the life of it, I think we should do everything possible in that direction, but, if the United States needs the continued productivity of that land, then there must be importation water to do it.

Senator DOMENICI. Doctor?

Dr. LANSFORD. I agree. There's only so much water, I'm not a hydrologist but it's been estimated that only about a quarter of an inch of recharge and natural recharge a year goes into the Ogallala in eastern New Mexico, so, we're not going to get very much natural recharge and we're pumping it out at a rate of something over 2 acre-feet an acre on 190,000 acres somewhere 200,000 acres. So, we are depleting the aquifer. The only way we can sustain it over an extended period would be to import water. Conservation, we can extend it as Steve said no longer than a couple of decades. There are some conservation measures, and they're adopting them, low pressure for instance. You go over to the east side of New Mexico, west Texas which I'm familiar with, tremendous modification and existing center pivot sprinklers through low pressures, binding low pressure pivots, they're doing some of this on their own and I think you can accelerate research and extend the life of the aquifer, but it's going to run out sooner or later.

Senator ABDNOR. Ms. Williams, has there been a study given to the political acceptability of water transfers to other States. I know that is a touchy subject. As a matter of fact let me tell you I come from one of those States, South Dakota. You remember, Senator Domenici, in the reconciliation bill, one of the members from Arkansas tried to put a clause in there to prohibit the transfer of water from this State.

Ms. WILLIAMS. Let me answer that in two or three ways and Steve I think I'm pretty sure will have some comments to make. He referenced resolution 6 which is adopted by the High Plains Study Council as an assurance to States which might be potential exporters for water to the High Plains, that their rights would in fact, be protected in perpetuity and that those rights were recognized by the council. As part of resolution 6, the general contractor was directed to contact each of the States from which such an export might be considered. The Governors of those States were asked to name some individuals in their administration who would have the technical expertise to discuss what the long range projections were in each of those States.

We are a little constrained on putting into the report the views of the private contractor, although, they have been discussed with the High Plains Study Council. One aspect of that consideration is one that we've discussed with the council on many occasions and that is that there is no way in our judgment that the type of Federal expenditure and involvement that would be require to support an interbasin version will ever be made unless the region itself is prepared to commit itself and to undertake every possible action to get the most bounce from its water resource before it asks for such support.

I'm perfectly aware of the attitude in Arkansas and Louisiana, they have made their positions quite clear. I was with the State of Texas when a diversion of water was considered from the Mississippi and then Senator Ellender observed at that time that water would be transported to west Texas only over his dead body.

Senator ABDNOR. It's a terrible thing.

Ms. WILLIAMS. It's a critical problem.

Senator ABDNOR. The States of Montana, North Dakota, and South Dakota gave up 2 million acres of their best land.

Ms. WILLIAMS. These are among the issues that we will be transmitting to.

Senator ABDNOR. Thank you. We've taken a lot of time, we could keep on going. I'm sure it's been very helpful, and it's been very interesting.

Senator DOMENICI. May I ask just one question on importation? Mr. Chairman, you're so right, the politics is as tough as the engineering and/or the economics, but, does the report give any special consideration to the Arkansas and Red from the standpoint that they are extremely salty and that the corps is involved, at the expense of the Federal Government, in a couple of desalting projects that might yield a very significant surplus of water in those two rivers if we cleaned them up.

Ms. WILLIAMS. Well, the Arkansas system does have some potentially exportable surfaces and this was the point I mentioned earlier that there might be some possibility of integrating a transfer of good quality water with some of that poor quality water bringing it westward for irrigation. In those areas where the soil has to be irrigated are sufficiently permeable, so that you don't get the soil build up problem that we were discussing this morning.

Senator DOMENICI. Steve, I did want to tell you that what the chairman indicated actually almost happened. The reconciliation bill, while it was an exciting process, is subject to one man's gain and another man's abuse. He chaired 1 of the 58 subcommittees and I found that worked it all out. Then somebody was going to put in a prohibition on Arkansas water being exported. Neither body had a hearing on that, neither body had a bill. If you're wondering why I didn't call you, Steve it is because that's one thing I was quite sure wouldn't ever get out of there and I agreed to compromise on everything.

Mr. REYNOLDS. Very interesting, Senator. Probably somebody talked to Senator Jackson along that line.

Senator ABDNOR. Well, I guess we better move on. We've got some very fine witnesses to hear from and time is going by. Thank you all very much.

Our next witness came to us all the way from Colorado. Mr. William McDonald, sorry to keep you waiting so long.

Mr. McDonald, you go right ahead.

STATEMENT OF WILLIAM McDONALD, SECRETARY, COLORADO WATER CONSERVATION BOARD

Mr. McDONALD. Thank you very much, Mr. Chairman. I have some remarks I'd like to share with you today, if I could.

For the record, my name is Bill McDonald and I'm a director and secretary of the Colorado Water Conservation Board which is the primary water planning policy agency for the State of Colorado. I appreciate this opportunity to appear before you today on behalf of my board and on behalf of Mr. Monty Paschal who is executive director of Colorado Natural Resources. Of the many natural water resource issues which was before this subcommittee during this session of Congress, I would like to discuss proposed changes in the manner in which Federal water projects are financed. It being our goal to be constructive participants in the national discussion concerning those matters. The primary policy in the Federal Government with respect to water resources development as you well know for decades has been to finance the construction of projects, that is to be the banker for the financing and construction. Repayment policies have ranged, depending upon the kind of project involved, from repayment of nothing to a partial or full repayment to the Federal Treasury without interest to full repayment with interest. And the entities repaying have ranged from the taxpayer at large in a case of notary payment to the actual project beneficiary per se and a variety of arrangements in between. And finally, of course, the means by which projects have been selected is a traditional project by project authorization and appropriations.

We, in Colorado recognize the changes in the present project by project appropriations process and the present financing arrangements for Federal water development projects may be in order at this time. We feel however, that any such changes, if necessary, indeed must be fashioned within the framework of and consistent with several basic principles. My purpose in appearing before you today is to set forth these principles for your consideration. While my comments will be made with reference to title I of S. 621. I want to emphasize that my remarks deal with concepts, not particulars and in particular my silence on any provision of title I of S. 621 is not to be taken as acquiescence. S. 621 is addressed, as you well know, to two substantial different areas. No. 1, the financing of projects, No. 2, the projects selection and funding process, the two do not need to go hand in hand although they have been plunged together in the bill.

Senator DOMENICI. S. 621 is the Domenici-Moynihan?

Mr. McDONALD. Is the Domenici-Moynihan bill for the record? Yes, sir.

With respect to the front end requirements of title I of S. 621, we recognize the new front end of cost sharing requirements may be in order in light of present day Federal budgetary constraints. However, it would seem to us that there should not be an abrupt shift from present congressional appropriations processes in which the Federal Government serves as the banker to a new front end cost sharing requirement, since this would not allow, we believe, the States adequate time both on the executive level and for the legislative process to react.

Therefore, we would suggest that front end cost sharing requirements be required to be phased in over a period of time starting for example, with 5 percent requirement which could be increased over time to a maximum of say 15 percent. This would give the States the opportunity to identify and develop sources which most of us to date are not equipped to do and it would provide the startup time necessary to lead into that kind of process for project construction. Consideration also needs to be given to the delineation of the criteria which would govern the application of such front end cost sharing requirements. For example, the requirement for front end cost sharing on a project devoted to satisfying national energy needs would be smaller we would think with a project of only localized benefits. Projects which address the Federal trust obligation with respect to American Indian tribes which otherwise have some element of national important does not require as much front end State participation as would otherwise be the case.

A third principle which is imperative that any new legislative address is the distribution or crediting to the states of the so-called access power revenues occurring in the various basin funds and speaking for Colorado, that would be with respect to the Upper Colorado River Basin funds and the so-called Missouri River Basin fund, although that is not actually a statutory creature.

The revenues occurring from access power sales now go to the general fund of the U.S. Treasury to repay the cost of irrigation projects which are beyond the ability of the irrigator to repay. Before Colorado could find any front end cost sharing requirement acceptable, there would need to be a satisfactory resolution of this issue. Furthermore, the assisting States in raising the funds which would be necessary to meet a front end cost sharing requirement, it may be desirable to give consideration of the changes in the operation of those basin funds in order to generate a stream of cash revenues that would be payable directly to the States which is not at all possible under the current law.

Finally, I would note that the bill is vague or silent at least on details which will have to be addressed before acceptable legislation could be forced. A number of examples could be given, but, let me touch briefly on a couple of three that seem most important to us.

First, what would be the effect of changes in the front end cost sharing on already executed repayment contracts on which Colorado has at least one example and I'm sure other states have other examples. Certain kinds of water projects are covered by the new front end cost sharing requirements proposed in the bill, traditional reclamation projects, the traditional flood control, the navigation projects of the corp, small watershed projects and the soil conservation serve and what have you. But, what if municipal water treatment and distribution projects and wastewater treatment projects which are not according to my reading of the bill among the projects handled by the three Federal agencies which are named in the bill.

The definition of the bill was unclear on what water treatment project includes and leaves HUD and FHA Home Administration. Grants and loans were the same which are the major Federal programs in that regard. Raises the question indeed to the extent that the impotence of the suggestion changes arises from regional perception within the country as to the sharing of the Federal programs for the financing of projects as to whether or not the issue has really been addressed if you leave out water treatment and distribution systems which seem to be the prime concern for example, the upper Midwest and Northeastern United States.

The final example, perhaps the most important would be under what circumstances our block grant moneys repayable to the Federal Government. What would be the relationship between any new mechanisms and existing law. What has become of the multitude of existing statutory requirements of the repayment of different kinds of projects. A very complicated area in which the bill is essentially silent at the moment.

With respect to the block grant process a fairly different feature of the bill as you are aware, Colorado would carefully consider a block grant approach in lieu of existing project by project appropriations process. If there is a reasonable and equitable allocation formula and if such a program would result in a reliable stream of revenues to the States, the land area and population formula presently embodied in the bill does not necessarily recognize the relative need or importance of water development projects in different parts of the country nor does it reflect the merits of competing kinds of project purposes.

Furthermore, the problem is compounded as to the kinds of projects intended to be covered by the bill leaving one in the position of being unable to anticipate how he would fare under a new program relative to how he would fare under an old program in terms of the simple politics the process being able to anticipate where you'd end up under new system relative to where you end up under existing system must surely be a critical parameter in the equation that each State will think through.

With respect to one specific provision of S. 621, that is section 103(E) provides that a Governor may object to a proposed project in another State. We would observe such provision would have a more precise standard if you will. In that regard, I would note the beneficial use of the waters of western river systems have been apportioned among the States pursuant to numerous interstate compacts and pursuant to the U.S. Supreme Court. It seems to us that those compacts and decrees are the appropriate standard for determining the availability of water project development in any one State. Furthermore, of course, any legislation must unequivocably recognize the State water laws are the sole basis for determining the use and allocation of waters in any one State which is entitled.

Finally, I would touch very briefly on the provision of the bill which would do away with the prerequisite that a projects benefit cost ration must exceed unity before that project can be funded. That is allottable provision while the benefit cost criterion is certainly an important one, we would be the first to acknowledge that. It is by no means the only criteria available with which to measure the full range and cost of the project. Indeed, such a criteria is valid only to the extent that the cost and benefits or market outputs to use the projects, that is measurable in dollars and cents, if you cannot measure cost in benefits in dollars and cents that criterion simply is not worth while determined of the proposed project. Being able to take other indicators and criteria into account is therefore a point of view of Colorado, most important in that kind of provision would certainly be justified.

In closing, I would note that the final principle which we feel any legislation must appear is the projects already entered construction in the construction stage, merely authorized, must not be subject to new front end cost sharing requirements nor to changes in the project by project appropriation process. It is imperative to us that such projects go forward to completion as expeditiously as possible under the present system.

Thank you.

Senator ABDNOR. We appreciate that you made some very fine points there and frankly I think Senator Domenici is chomping at the bit to ask some questions.

Senator DOMENICI. I'm just so pleased that even with all of the caveats that there's an indication that we might be on the right track in terms of trying to create a whole new approach to the present ad hoc project selection and the maze that you've described, really doesn't make very much sense.

You've been following water project funding and national water policy for a while I assume have you not, Bill?

Mr. MCDONALD. At least a couple of years since I was appointed. I would refer to people like Steve Reynolds for details.

Senator DOMENICI. Well, let me tell you what I think. I think that in spite of the commitment by this administration that we were not going to continue as we have in the past 4 years with a stalemate that has lent itself to almost a no new project starts, I'm convinced that the likelihood of any significant increase in the Federal resource and commitment without some significant reforms it's very slim.

Mr. MCDONALD. I think we in Colorado would certainly share the observation with due respect to both past and present administration that despite a difference in rhetoric and tactics, the bottom line is the same and in that context we certainly would reiterate our observations that it would appear to us that we have simply arrived at the point in time where reconsideration is going to be given to that historical system which is in place now and we come today prepared to participated in that discussion and to be a constructive participant in helping you to examine and fashion changes that are relevant to the Federal budgetary constraints that we faced while still taking into account, I would emphasize, the water development needs of all.

Senator DOMENICI. Let me just talk about some of the specifics. I don't take any great pride in the distribution formula if we're going to go to a block grant for State involved approach which is land and population. It happens to turn out fairly well for some and not so good for others based upon historic distribution. You don't necessarily think that is best in terms of distribution formula. Do you have any ideas as to how we might improve on it?

Mr. McDonald. I would have to be candid in acknowledging that at this point in time we're as perplexed as I'm sure you must have been to draw such a formula. Perhaps the observation I would make is that the need for water development is a function of more than land area and population. It's a function of other parameters such as irrigable acreage, the amount of water remaining for a State to develop which in some States is precious little and in other States its more.

Senator Domenici. The other thing I would like to share with you as we move in this direction and I have no way of knowing at this point whether the Domenici-Moynihan approach is going to be part of a new national policy, but you raise questions about a myriad of other programs that are still out there under farmers home, under water sewer grants, under EPA, the corps. I hope you understand that we did not envision in our first draft an attempt at getting some attention. We didn't have the courage to say we will put all of them in one. So, your questions are quite appropriate as to what happens to all the other programs. Do they continue to exist? We said we'll start a new one and it will fast track what has historically been in Corps of Engineers and the Bureau of Reclamation but expanding it a little in terms of scope. Are you suggesting that perhaps we ought to give more serious thought to making it more comprehensive in terms of some of the other programs that fund water resource development?

Mr. McDonald. I believe the point I want to make for today's purposes, Senator, is not that it should be more comprehensive or less comprehensive. The draft legislation is unclear. At an absolute minimum without really taking a position one way or the other on the question you posed, it needs to be absolutely clear in any such legislation that might go forth, what is it intended to cover. Because when you start getting into the statutory language concerning retainment, basin funds, and other things, you've got a mess on your hands unless the drafting job is very, very precise.

Senator Domenici. Let me ask you in terms of cost sharing, you made a point that it ought to be phased in and that perhaps it ought to be variable, if I read you right.

Mr. McDonald. Yes, sir.

Senator Domenici. What would a project, that in your State, had a mix of needs, shale oil development, some irrigation, some recreation, how would we go about following your thinking through on that? What would be local, what would be national? That which is for shale, I assume based on your reason it would be national, is that right?

Mr. McDonald. That's exactly the kind of example that prompted that thinking. There has to be a Federal financial role in development of water projects to the benefit of the synthetic fuel industry in the State of Colorado. That's a development prompted largely by national factors beyond the control of the State and perhaps beyond the immediate desire of the State in terms of what we would otherwise devote our water resources to. We're more than pleased to participate in the development of our shale resources for the benefit of this country, but we're not at all sure that we ought to be the one's up front financing that portion of the project which assumes a multiple purpose project allotable to that water supply for that industrial purpose. I should also say that I don't want you to assume in these comments that it's appropriate that the Federal Government be in the business of building Federal projects for the benefit of the industrial sector. I'm of the opinion they ought to go entirely on their own as a pure matter of economics. However, the State has a strong interest in seeing multiple purpose project development go forward and not single purpose project development and we think there may well be a role in the Federal project even in oil shale country where also, in addition the water for the irrigated sector, you've got to worry about a spinoff associated with municipal growth and small communities. We don't foreclose the need for Federal project, we really have to keep in mind that those companies could finance their own if they chose to do so. Many of them are taking steps to do just that, to finance their own projects.

Senator DOMENICI. The only observation I share with you for these purposes, as we move through the recommendation that you've made on behalf of your State, is that the percent varied depending upon the Nation and I just want to give you an example. Because of the President's recommendation, we were considering drastically cutting impact aid to schools. You're a water man, you know what impact aid to schools are.

Mr. MCDONALD. Sure.

Senator DOMENICI. So, one of the major impact aid programs is aimed at those students who go to our public schools who come from the military base. One would conclude that those children are a real burden on the State, and therefore the Feds ought to pay for it, that's the kind of rationale that you would use?

Mr. MCDONALD. That conceivably is the extreme of the logic, yes, sir.

Senator DOMENICI. I had a solution that is sort of after the fact, but it fits with your thinking that we can do it in advance. I had a thought that if they are serious about charging tuition, which I understand one of our States wanted to do, I thought it might be quite appropriate to suggest that the Secretary of Defense therefore could move the installation to another State. I think one would quickly find out where the benefits were. There are far more benefits flowing from that military installation to the citizens and to the economy than to the slight burden on the school system. So, I think it is relevant to thinking through what is national and what is not national in terms of assessing benefits because then if your people would assume that the jobs that come from shale and the growth that is probably planned is pretty much local, yet right off we say we wouldn't be developing this unless the Nation had a problem, right?

Mr. MCDONALD. Certainly so and one hardly is here to deny some of the benefits are localized. One would hardly argue that if there were a project devoted to oil shale development that therefor ipso facto there should be no State participation whatsoever. There would be benefits on the local level and I think we have to go through a very careful thinking process of what might be an equitable portion that the State shares in that instance.

Senator DOMENICI. Mr. Chairman, I have no further questions.

Senator ABDNOR. Thank you. I think we better move on to our next witness and we thank you for coming all the way from Colorado to share your thoughts and views.

Our last witness is Dr. Thomas Bahr, director of New Mexico Water Resources Research Institute, New Mexico State University.

STATEMENT OF THOMAS BAHR, DIRECTOR, NEW MEXICO WATER RESEARCH INSTITUTE

Dr. BAHR. Thank you, Mr. Chairman. I have a written statement submitted for the record, so what I'll do is simply go through and summarize the high points and try to avoid some duplication of comments that were made earlier today.

For the record, I am Tom Bahr, director of the New Mexico Water Resources Research Institute. We're a statewide agency that reports through New Mexico State University. We have responsibility for the coordination of research and all the institutions of higher education in the State have water research and teaching programs.

For the past 15 years I have been a researcher, I've been a research administrator, I've had a professional association with well over 200 faculty researchers and various universities of the country and what I'd like to do is make a pitchfork search, more specifically I'd like to support title III of Senate bill 1095 which makes available water research funding to universities and other qualified groups in the country.

I'm not speaking on behalf of any organized group. I'm confident my views are shared by most of my colleagues around the country. My written statement discusses our biggest water problem and I said not enough of it. That's primarily the problem. You've heard a lot about it earlier this morning, you're well aware of it. I will not go into any detail other than to say that we're not going to get out of our problem unless we make a strong commitment to research as part of our national water policy. Water policy has to contain a research commitment. Over the years we've solved a lot of our water problems by large projects, impoundments, and so on and the principal ingredient that went into that solution was enough money and adequate reservoir sites.

This was also coupled with a tremendous amount of knowledge that was gained over many years of research.

Now, unfortunately, we're at a period in time where moneys have not been available anymore.

We're rapidly running out of good reservoir sites even though we're going to have to build some. So, we've got to look for different solutions. Now, we're a first-class nation and I think that we should arm ourselves with first-class knowledge when we get into the 21st century and attack new problems, problems we haven't even thought of today.

What I'd like to do is give you a few examples of what we're doing with research and also some of the payoffs of this research.

You heard a great deal about the high plains study. One of the alternatives is bringing in water. We don't know how the numbers are going to fall one way or the other, but, it is possible that it may not be cost effective. Where do we go from there? You know you reach a point of diminishing terms with any kind of technology. We developed low-pressure, precision, irrigation systems through research. We've developed very sophisticated irrigation-scheduling procedures and these pay great dividends and they're going to continue to pay dividends but sooner or later, you're talking about irrigation, you're talking about growing crops, the bottom line is how much water does that plant need? The ground, over the last few decades, has pretty much geared the research toward maximizing productivity and this was in an era of relatively cheap energy and abundant water, so, what we're left with now is large strains of crops that require a tremendous amount of water in many cases. We need to turn that around. We need to start looking genetically through plant breeding to crops that use less water. You've heard earlier statements about alfalfa. Let me give you a couple of examples. These were picked last Friday so they're starting to fall apart. A normal alfalfa plant if there is such a thing, requires about 60 inches of water, 5 feet of water a year. This is one such variety, I'm not quite sure of the name of this one. We are now in the fourth year of a study that was funded as a matching grant from OWRT State funding through the interstate screening commission and also State corporations and also title III of the WRC on this particular set. This is one that has been grown on 30 percent less water, 40 inches a year. So we've made great strides. It's not ready to be released, we don't know what the next generation is going to be. These are long-term plans of investments that you have to make in research. We've got a smaller one here that's 20 inches of water a year. We've got a little ways to go with this one. But it's still alive. That's one example.

We also have a lot of native plants around this part of the country. This may even grow up as far north as South Dakota. This is a culture weed. It's very productive—doesn't use much water. And as you probably well know, the bad news is there's a chemical in this particular plant that in high concentrations is harmful to cattle. We're in the second year of the study to see if we can breed out that particular chemical and we have every reason to believe that we can. So, this type of thing, we believe, has great promise for the future in dry land agriculture.

Let me back up just 1 minute. We have with this alfalfa, if you were able to reduce a water requirement from 60 inches to 40 inches in the high plains of New Mexico alone, you would save an equivalent amount of water equal to about 100,000 acre feet a year.

Senator **Domenici**. That's where we grow alfalfa, Doctor?

Dr. **Bahr**. Where alfalfa is being grown right now on the High Plains and when you translate that into pumping cost you're talking over $1½ million a year just in savings from pumping cost. So, the impact of this is profound if you were to expand that type of technology to the other States that have similar problems.

We're looking at another approach, too. We have a plant called "salt grass"; it's a wild grass that grows in saline seeps around the State. You might consider this far-out basic research project. We're trying to understand the mechanisms by which that particular plant is tolerant to high levels of salt. By accident, during the course of this study, we found that there may be a chemical, a plant hormone, that imparts salt tolerance to that particular species. It was discovered by accident—this is the way breakthroughs occur. You don't set out to find that specifically, but it happens. We don't know whether that chemical can be applied to another plant to make it salt tolerant but I think the opportunities here are profound.

Senator DOMENICI. You think if we can do that with humans, we ought to be able to do it with plants.

Dr. BAHR. We have directed our plant research primarily toward this thing as maximizing complexity. We haven't really made a conservative effort to try to develop plants that are salt tolerant and drought tolerant. Let me go on and just touch a little bit on saline water. We have an abundant supply of saline ground water in New Mexico estimated to be 15 billion acre-feet. The United States has made very great progress in the technology for taking salt out of the water—desalting. We may not reach the day when it's going to be cheap enough to irrigate acreages; it's still an extremely expensive technology and also energy consuming. Nevertheless, some water users may find that desalting water is the only economic alternative they have. I think we need to continue research and development in this area, particularly in the solar energy development. We have put a lot of effort into reverse osmosis techniques and electrodialysis. There is very little being done in solar energy technology. I think there has been a serious lack of Federal leadership in that area.

How about direct use of saline water? This is something that we've been getting very excited about. Right now in California, laboratories have been able to grow tomatoes with seawater. Scientists in Arizona are developing grains from salt-tolerant plants. Native palfites, they're called. In Israel right now, scientists perfected techniques for producing protein and very high value pigments from culturing algae in brackish water. Here in New Mexico, we have quite a lot of effort underway in this area of developing salt-tolerant crops.

I think these are some of the kinds of technology we can develop through research. They're not going to happen without research. It's going to take many years to do this and it's not going to be solved by money alone. Stability of funding is in many cases more important than level of funding. You can't stop a project halfway through and then restart again. So, let me conclude my remarks here by saying a few words about the water institute program.

Water institutes began in the early 1960's. Each State has a water institute. In recent months, the institute program has come under criticism by the administration and by some Members of Congress and I would admit some of these criticisms are indeed valid. However, the many good aspects of these programs are very frequently overlooked. You heard mentioned this morning the low-pressure irrigation system. This was developed through funding to the institutes programs and at the present time is saving hundreds of millions of dollars in Texas, Oklahoma, and New Mexico for 1 year. This far exceeds the regional investment for the total investment of the program since its inception. Right now, my office is only able to fund about one-third of the good proposals that we receive. About half the proposals we get are not of high enough quality to fund. The good ones we can only fund about one-third.

Now, the cutback in funding through Interior and the water institute program which was supported under WORT would severely affect our ability to fund these proposals, even though we get more State appropriations than we get Federal appropriations and it will impact on research of the kind you see here. It's my feeling that the benefits of research are going to be felt in more places than just in New Mexico and I don't think it's fair for New Mexico to have to carry the load for the research that's going to be a widespread.

So, from that standpoint, I think there is indeed a very significant Federal role. Senate bill 1095, title III, has provisions for an institute program and funding water related research and this is something that I strongly support. I just returned last week from a meeting of the Universities Council on Water Resources and this is a group of people made up of individuals from nearly every university that has a significant research and teaching program in water resources. They passed a resolution unanimously supporting Senate bill 1095 and your committee should be getting a copy of that very shortly.

At this point, I'll conclude by saying that I hope that your colleagues in the Senate and the House share some of the same concerns that I have and will support a program of continued water research as part of the strong national water policy. Thank you.

Senator Abdnor. Thank you, doctor. In other words, you don't think there's much likelihood that water research, like you've been discussing, will hardly go on without having OWRT like we have in title III?

Dr. Bahr. OWRT right now or as it was is a very small fraction of that total research expenditure nationally. About $300 million a year are spent on water resources. But only a small fraction of that is for research. A lot of it is for monitoring and so on. With OWRT out of business you're going to have a major impact.

Senator Abdnor. We hope that we can be successful in getting a reconciliation. We've had a lot of support from witnesses who have appeared and maybe we can get it down to the administration and to the OMB director because we think its very, very important. You may see it in a little different form but still keeping the seed money that keeps all of this going. We're really happy to have your views on it, it's been very helpful to us.

Dr. Bahr. Thank you.

Senator Abdnor. Thank you.

Senator Domenici. Thank you, Mr. Chairman. I want to compliment you on your work. I remember meeting you when you were arriving on scene. Some of us wondered whether you could make the transition from where you were to here, you've done it tremendously well and I compliment you for that.

Let me ask you, doctor, how do you make the research, that the United States has been involved in all these years, move in the direction that you described? How do you turn it around to direct it at what you described? What you're really saying, and what the OSGS expert said this morning is that we have a lot of money in water research and a lot of money in AG research which we have to put together in terms of your present testimony. They've been going off in the direction of let's see how we can get more corn produced where there's a lot of water and all of sudden you get more per acre. It would appear that at least we ought to be going into another direction at the same time. How do you do that?

Dr. Bahr. Senator, I really wish I knew the answer to that. It is a very sluggish bureacracy in many respects. People get used to doing things. They're comfortable by doing things a certain way. This goes all the way down to a policymaking level to the people in the trenches that are doing the work.

I think it's going to take a strong push from the Congress, a very strong push from the Congress.

Senator Domenici. I'll just give you an example of Guayule and the importation by the United States of natural rubber. It's a $700 or $800 million a year importation and that supply worldwide is not increasing, it's diminishing. The world demand for that kind of natural rubber is increasing and here we sit with that huge balance and we can't get the U.S. Department of Agriculture to consider Guayule with any enthusiasm. They're far more interested in how to get more ears of corn out than they are in Guayule. I understand your counterparts in Arizona and elsewhere say literally it could be a multimillion dollar arid crop in Arizona and parts of Texas and New Mexico and even make an international deal with Mexico as I understand it. They can grow it together, we can do some cooperative things but they just don't move fast enough in those areas do they?

Dr. Bahr. No; they don't. I agree with you 100 percent. Furthermore, if I can expand, not only those that do recognize some value in Guayule and our developing programs to get this off the ground have even failed to recognize the water needs of this particular crop, but even though it's a good land crop they have become experts on this, realize the more water you put on it the better it grows. And it will take a tremendous amount of water. These things have to be looked at very carefully as part of a total program.

Senator Domenici. Mr. Chairman, I would just suggest to you that he made a point that's frequently overlooked, the consistency to know that you've got a 10-year plan. I recall that for experimentation in a Guayule, it was the National Science Foundation's ad hoc injection of funds in Guayule in the last 8 or 9 years that got us where we are today. We wouldn't even be where we are if we waited for the U.S. Department of Agriculture.

Dr. Bahr. I think you're correct on that and also there is another crop called Cramdie and right now NSF is the Agency that's funding some of our research to look at the feasibility of growing Cramdie on brackish water; USDA isn't.

Senator Domenici. What if we don't continue to fund the OWRT? What's going to happen to your institute, at your university?

Dr. Bahr. I guess I viewed the situation as one of having at least some opportunity to compete for research funding no matter where it is, if it's available to our particular institute and our university. We're going to compete for it and compete for it successfully. We get State appropriations in excess of Federal appropriations. We'll be in business. It will significantly affect new starts in our program and it would cut back existent projects. So, it will have a very real impact. Regionally, it will have even a bigger impact. Some States do not have the lead time right not to go to their State legislators to get funding to maintain a certain program. That's very critical.

Senator DOMENICI. You said you discard about 50 percent of the proposals as being not good enough to worry about and fund about a third of 50 percent that you think are good. Who determines which are good? What kind of system do you have?

Dr. BAHR. We have, Senator, a statewide program development and review board that's made up of representatives from the State engineer's office, the environmental improvement division and then two representatives from each of three universities. Our scientists are acquainted with the matter and we sit down and we review every single proposal for technical content for its relevance to a water problem and the capability of investigation in the light that it would be a successful project.

Senator DOMENICI. You do that once a year?

Dr. BAHR. We do that every time we have a batch of proposals coming in. We do it at least twice a year, one for matching grant proposals and another time for proposals for State funds and Federal appropriations.

Senator DOMENICI. Would you be able to supply us for the record just some brief idea of what they are and which one's you funded?

Dr. BAHR. Our last review was in late March or early April. At the time we had roughly 30 projects, some of which were continuations. We will be able to fund probably six new starts and that's it.

Senator DOMENICI. Will you give us those and a list of what they are just to have some idea when we talk to our colleagues?

Dr. BAHR. Yes; I certainly can.

[The information requested follows:]

New Mexico Water Resources Research Institute

New Mexico State University ● Telephone (505) 646-4337 ● Box 3167, Las Cruces, New Mexico 88003

August 25, 1981

The Honorable Pete V. Domenici
United States Senator
2317 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Domenici:

Per your request during the August 10, 1981 Water Resources Subcommittee Hearings in Santa Fe, the attached is additional information on proposals submitted and funded by our office. The list is broken down into continuation projects which are multi-year projects continuing into FY-82, and new requests. I have subdivided the new requests into those that will be funded, those that ranked high but we are unable to fund, and finally, those that ranked too low for funding. Our rankings were based on a review by our statewide Program Development and Review Board which met on May 8, 1981.

The following is a brief summary of the listings:

* *

CONTINUATIONS:	9 projects	$137,717
NEW REQUESTS:	22 projects	516,365
Ranking high enough for funding	13 projects	284,231 (55%)
Funded or to be funded	5 projects	110,106
Ranking too low for funding	9 projects	232,134 (45%)

* *

As can be seen from this breakdown we are only able to fund 5 out of the 13 high quality new requests.

The funded projects are supported by State appropriations and some with the last of the available OWRT funds. If we receive no Federal funding for FY-82 our ability to continue ongoing projects and initiate new starts will be significantly reduced, especially with the 50:50 Matching Grant Program.

Our State Legislature has been very supportive of the State/Federal cooperative water research program as evidenced by their willingness to provide matching appropriations for the research. As I mentioned in my testimony, many of the research problems we address have payoffs that transcend the boundries of New Mexico and have regional and national significance, thus it would appear inappropriate for our State to have to fully finance these projects. For this reason I am concerned that our State support might be jeopardized if the Federal portion of the funding is eliminated.

Again, I appreciated the opportunity to testify in Santa Fe and hope that this supplemental information is of use to you.

Yours very truly,

Thomas G. Bahr
Director

TGB/ya

Attachment

cc Other Members of the New Mexico
Congressional Delegation

Senator Abdnor, Chairman,
Water Resources Subcommittee

Dr. Gerald Thomas, President
New Mexico State University

I. CONTINUATION PROJECTS

Descriptive Title	FY-82 State Appropriations
Maximizing Use of Natural Rainfall through a Water Harvesting Technique	$ 2,000
An Assessment of Heavy Metal Pollution in Warm Water Reservoirs	25,049
Evaluation of Salt Grass as a Potential Forage Crop to be Grown Using Saline Water Irrigation.	20,311
Mechanisms of Virus Inactivation in Wastewater Treatment	22,459
Assessment of the role of Livestock to Water Pollution from Rangelands	12,500
A Basic Study of Water Flow Dynamics in Unsaturated Soils	8,523[1]
Development of Drought Tolerance Strains of Alfalfa to Reduce Irrigation Water Requirements	1,875[2]
A Detailed Study of Water Requirements and Crop Production in the Four Corners Region	10,000[3]
Socio/Economic Modeling of Water Management Alternatives Related to Agriculture and Water-Based Recreation in the Rio Grande Basin	35,000[4]
	$137,717

[1] State Appropriations to cost share in an OWRT Matching Grant.

[2] Additional funding from OWRT Matching Grant and New Mexico Interstate Stream Commission.

[3] Additional funding from Bureau of Reclamation and Bureau of Indian Affairs.

[4] Additional funding from U.S. Fish and Wildlife Service.

II. NEW REQUESTS

A. Those Funded or to be Funded:

Descriptive Title	FY-82 Budget Request
Assessment of Gradient Irrigation of Winter Wheat for Maximum Utilization of Water	$ 6,000
Field Evaluation and Demonstration of a Methane Producing Anaerobic Sludge digester for Municipal Wastewater Treatment	24,058
Development of a More Useful Runoff/Flood Model for Complex Urban Watersheds	22,240
Environmental Modeling of the Movement and Fate of Chlorinated Organic Compounds in Rivers	33,668
A Study to Develop Simplified Flood Estimation Techniques	24,140
	$110,106

B. Ranking high but unable to support because of lack of funds.

Descriptive Title	FY-82 Budget Request
A Study of Algae Production in Saline Water for Beneficial Uses	$ 30,186
Assessment of Reduced Water Application Techniques on Growth and Production of Pecans	24,930
Development of Control Strategies for Preventing Groundwater Pollution by Septic Tanks in High Growth Areas	25,000
Development of Landsat Monitoring Techniques to Assess Irrigated Acreage in New Mexico	12,813
Application of an Irrigation Scheduling Method for Eastern New Mexico Conditions	8,500
Fundamental Studies on the Mechanisms of Salt Tolerance in Plant Species	23,773
Water Purification Using a Solar Powered/Low Temperature Distillation Procedure	23,713
A Genetic Selection Study for Salt Tolerance in Valencia Peanuts	25,210
	$174,125

C. Ranking too low for funding at this time.

Descriptive Title	FY-82 Budget Request
A Study of Alternative Institutional Arrangements for Water use in New Mexico	$ 24,850
Ozone Sterilization as Pretreatment for Demineralization of Drinking Water	25,900
Design of a Chemical Treatment Scheme for Dairy Wastewater	23,000
Electrochemical Fixation of Nitrogen to Produce Ammonia	24,015
A Study to Examine the Role of Dissolved Gases in Relation to Groundwater Hydrology	11,251
The Role of Root Microorganisms in Importing Salt Tolerances to Cotton and Chili	20,238
Assessment of a Technique for Displosal of Used Geothermal Water	24,730
Selenium Removal from Mine Wastewater by Ion Exchange and Adsorption	25,000
Application of Electrodialysis/ Ion Exchange Techniques in the Treatment of Uranium Mine/Mill	53,150
Wastewater	$232,134

Senator **Domenici**. I have nothing further, Mr. Chairman.

Senator **Abdnor**. Thank you. That concludes our witness list. Both Senator Domenici and I agree that this was a fine group of witnesses.

[Whereupon the hearing was adjourned to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT

BY

MAJOR GENERAL WILLIAM R. WRAY
DEPUTY CHIEF OF ENGINEERS
OFFICE, CHIEF OF ENGINEERS
DEPARTMENT OF THE ARMY

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

FIRST SESSION, 97TH CONGRESS

ON

MISSIONS AND ORGANIZATION
OF
THE U.S. ARMY CORPS OF ENGINEERS

10 AUGUST 1981

SANTA FE, NEW MEXICO

NOT FOR PUBLICATION
UNTIL RELEASED BY THE COMMITTEE
ON ENVIRONMENT AND PUBLIC WORKS

Mr. Chairman, I am Major General William Wray, Deputy Chief of Engineers of the U.S. Army Corps of Engineers.

I am pleased to be here in response to your invitation to present the views of the Corps of Engineers on the way we are organized to carry out our missions and also to highlight some of the organizational changes that are now under consideration. My statement will be in three parts - namely, the Corps missions, the Corps structure and the past and current Corps organizational studies.

The Corps missions derive basically from congressional authorizations for water resources development and the national defense responsibilities assigned to the Secretary of the Army and the Chief of Engineers. These include the military support mission of design and construction for the Army and Air Force and the civil works or water resources development mission. We also provide, within our capabilities, technical support to other Federal agencies. In time of mobilization for war, the resources of the Corps that perform these various missions would be available to concentrate on construction for the Nation's armed forces, as well as operate and maintain critical civil works projects related directly to national defense efforts, such as navigation locks and hydroelectric power facilities.

The Corps of Engineers has a worldwide, decentralized structure with 14 divisions, or regional offices and 40 subordinate districts. Generally, the divisions supervise and review programs and the districts execute the work. Eleven of the divisions and 36 of the districts are in the United States with all districts responsible for civil works projects and eleven also performing military construction missions. We also perform research and development and real estate functions in support of our mission.

Civil works activities encompass a wide range of services to the American public. The program, which is funded at an average annual rate of approximately $3 billion, comes under a separate appropriation that is not part of the defense military budget. The program is executed by a staff of officers and civilians in the divisions and their subordinate districts. Projects executed by the districts may include flood control, navigation, recreation, water supply and hydroelectric power with many projects providing multi-purpose benefits. These water resource development projects are generally undertaken only when national economic and environmental benefits outweigh the cost of the projects.

Most civil works projects are initiated by local citizens who express their needs and concerns to their elected representatives express their needs and concerns to their elected representatives in Congress. After Executive Branch and congressional approval and funding, the Corps proceeds with the project. As projects proceed in the development process, close and continual coordination is maintained with state and local agencies. Input from interested groups and the public at large also is solicited. Critical to the timely execution of this process is the annual appropriation of funds by the Congress for each phase of work.

The Corps of Engineers also provides technical and planning assistance to state and local agencies and participates with the responsible state and Federal authorities in disaster emergencies and in efforts to protect life and property. The Corps Civil Works field structure, as shown on Attachment No. 1, is organized primarily along watershed and river basin boundaries and is comprised of division, district, area, resident and project offices. As I indicated earlier, district offices execute the program. Therefore, the earliest districts were established near ports and navigable rivers, which predominate in the south and east-central sections of the country, to reflect the Corps' early navigation mission. As flood control, hydroelectric power and multi-purpose projects were authorized, additional districts were established in other areas, including the western states. There are fewer districts in the west, including the Rocky Mountain states, because the Bureau of Reclamation is also involved in Federal water resource development activity in this area, primarily for irrigation and hydroelectric power.

Area, resident and project offices are subordinate to districts and are located at or near the sites of construction and operational facilities. Above the districts, division offices were created to decentralize control and integrate activities on a regional basis. Division headquarters operate with major delegations of authority from the Chief of Engineers to division engineers who are located in the major regions of the United States.

When the Corps of Engineers was given the military construction mission at the beginning of World War II, existing districts were used and new ones were created. From the end of World War II through 1961, all districts had both civil works and military construction responsibilities. This provided considerable flexibility with peaks in one program offsetting valleys in the other. This also provided the optimum capability to expand quickly in time of mobilization or war. But in 1961 and again in 1970 the number of districts with military construction responsibilities were reduced because the declining military workload dictated that reduced number as a more efficient operating structure. Albuquerque's military construction functions were consolidated into the Ft. Worth District in 1970. Ft. Worth is one of the districts in the U.S. that has retained the military work.

There have been several studies of organizational structure since 1970. Some have resulted in changes to the Corps district missions and some have not. As an example a Denver district was considered but found not justified on the basis of insufficient civil works and military programs for the Army and Air Force in the area. Any new district, of course, takes territory and projects away from existing districts.

Attachment No. 2 shows the military construction structure in existence today. As we consolidated the defense support mission, the pure civil works districts still retained a stand-by mobilization responsibility. To enhance this situation, we are adding some personnel to district emergency/mobilization staffs, providing more training for existing personnel and taking other steps to ensure greater flexibility.

Because of the Corps' design, construction and real estate expertise and decentralized structure, with district offices in many major cities, other Federal agencies have sought Corps' assistance. For example, the Corps has undertaken work for NASA, US Postal Service, Dept. of Energy, EPA and many others. Currently, support of EPA's wastewater management program is one of the Corps' larger activities for other agencies. The advantage of such work is that it helps preserve the economic and technical base of the organization and allows us to respond to the needs of the Nation. Over-consolidation of districts would undermine the Corps' ability to respond to changing national needs, particularly during mobilization. At the other extreme, fragmentation of our structure would result in uneconomically small organizations that are unable to maintain a staff of fully trained professionals.

With this background, I will discuss the more recent comprehensive studies of the Corps' missions, workload staffing and organizational structure.

We initiated internal studies in 1977 and 1979 aimed at achieving management efficiencies and a better distribution of the workforce to improve mission accomplishment. These studies were aimed at doing better with the employment ceiling we then had. In contrast, our current review is in response to a mandated reduction of about 3,000 (or over 10 percent) to be achieved in the Corps' civil works personnel ceiling during fiscal years 1981 and 1982, and another 2,200 in the succeeding four years. The reduction must be made in the civilian workforce paid from civil works appropriations and our goal is that it be done without eliminating any missions, including work performed for other Federal agencies. I might add that we have already achieved a reduction of 700 of the 3000 spaces.

In 1977 we examined the long range missions and workload trends. Plans and concepts were developed for, among other things, the balancing of personnel resources based on forecast workloads and for improving mobilization plans and capabilities. Based on the results of this preliminary study, a joint headquarters and field realignment study was initiated in January 1979.

At that time, division engineers were directed to study their civil works organizational structure, functions and staffing. These studies were reviewed by the Chief of Engineers, and a number of proposals were announced to Congress and the public. Though the studies included consideration of changes in the Southwestern Division, including Albuquerque District, no such changes were Valley, North Central and Pacific areas, within the Corps structure.

Based on study results and congressional and public support for maintaining the existing Corps field structure, the Chief of Engineers decided that no major realignments or closures would take place. However, some boundary adjustments and functional transfers were achieved.

As I mentioned, our present study is driven by the cut of about 3,000 civil works personnel spaces by the end of fiscal year 1982 and another 2,200 by 1986. We are confident that our plans will achieve these reductions while continuing to meet our responsibilities for national defense and the water resourcer programs assigned to the Corps and for technical support to other Federal agencies.

The current analysis of the civil works structure and staffing is developing into three levels of proposed actions. By priority these are:

First, actual realignments and, in some instances, consolidation of functions and organizations for greater efficiency. These are based on some of the realignment studies in 1979. Such actions would give us the greatest savings without a significant reduction in the quality and level of performance.

Second, the prioritization of functions, with a degree of nationwide consistency. For example, we are considering nationwide reduction in the number of people devoted to recreation at our lakes. This would protect our professional engineering and technical capabilities in the primary mission areas of design and construction, and

Third, locally determined reductions in staff to complete the total manpower cut. These will reflect workload reductions, shifts in emphasis and internally initiated economies.

While civil works spaces are being cut, the design and construction load for the Army and Air Force is expected to increase by about 50 percent in FY 82 with further increases thereafter.

This has spurred study of the possible creation of a few additional full service districts by restoring to them some or all functions in support of the military construction program.

Involving more districts would be a benefit to military construction execution and to mobilization capability. To date the Army and Defense have been unable to provide added personnel positions to cover the military workload increases for FY 82, to say nothing of additional spaces that would be needed if changes in organizational structure result in adding military functions to districts which now have only civil works responsibilities.

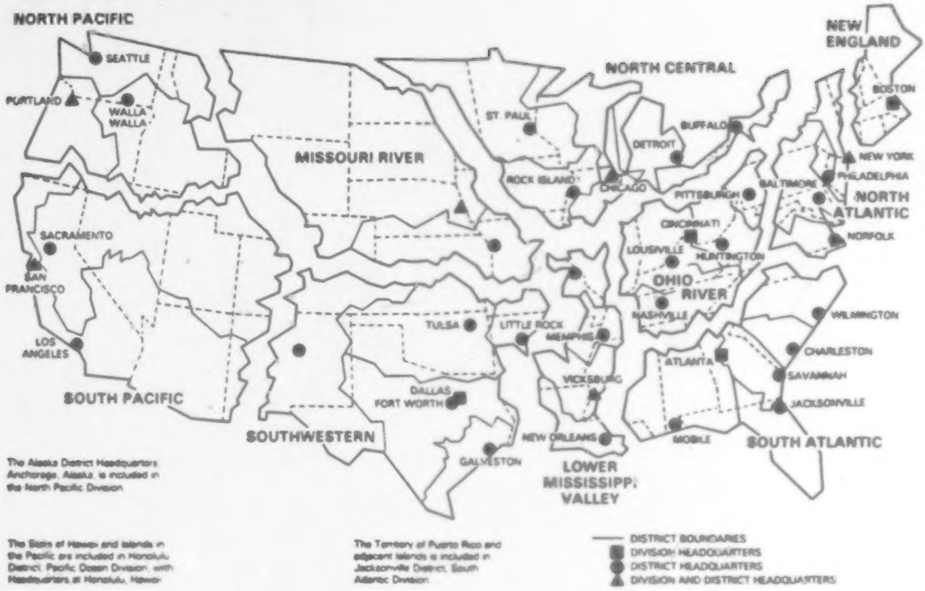
Later this month the Chief of Engineers expects to present a revised plan for achieving the civil works reductions to the Secretary of the Army. Following that we will solicit congressional and public comments. Any proposal to revise the Military Construction boundaries will follow, probably in September.

In summary, Mr. Chairman, please be assured that we will continue our practice of studying long, as well as short range, trends in workload, missions and priorities as part of our continuing review and analysis of organization and staffing. We are most sensitive to the need for a structure that permits flexibility in response to the

Nation's needs and that allows us to maintain full capability in the engineering and technical skills. This will enable us to support defense requirements in peace and under mobilization, as well as continue to improve our water resources program performance and response.

Mr. Chairman, this concludes my statement. I'll be pleased to respond to any questions you may have.

DIVISIONS AND DISTRICTS FOR CIVIL WORKS ACTIVITIES


NORTH PACIFIC
SEATTLE
PORTLAND
WALLA WALLA
NEW ENGLAND
BOSTON
NORTH CENTRAL
ST. PAUL
BUFFALO
DETROIT
MISSOURI RIVER
ROCK ISLAND
CHICAGO
PITTSBURGH
BALTIMORE
NEW YORK
PHILADELPHIA
NORTH ATLANTIC
NORFOLK
SACRAMENTO
SAN FRANCISCO
CINCINNATI
LOUISVILLE
HUNTINGTON
OHIO RIVER
NASHVILLE
WILMINGTON
LOS ANGELES
TULSA
LITTLE ROCK
MEMPHIS
ATLANTA
CHARLESTON
SAVANNAH
SOUTH PACIFIC
DALLAS
FORT WORTH
VICKSBURG
JACKSONVILLE
MOBILE
SOUTH ATLANTIC
SOUTHWESTERN
NEW ORLEANS
GALVESTON
LOWER MISSISSIPPI VALLEY
DISTRICT BOUNDARIES
DIVISION HEADQUARTERS
DISTRICT HEADQUARTERS
DIVISION AND DISTRICT HEADQUARTERS

The Alaska District Headquarters, Anchorage, Alaska, is included in the North Pacific Division

The State of Hawaii and islands in the Pacific are included in Honolulu District, Pacific Ocean Division, with Headquarters at Honolulu, Hawaii

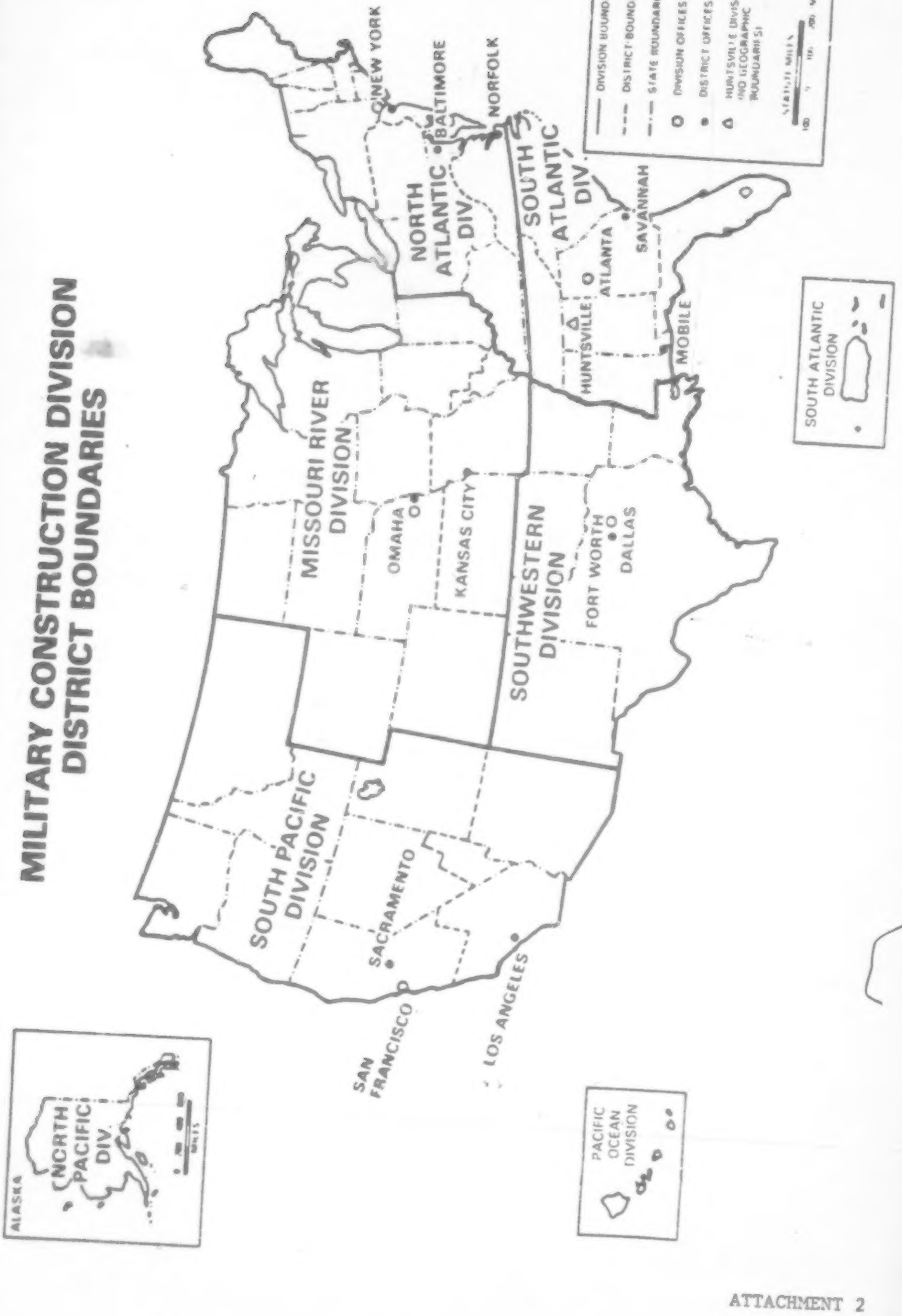
The Territory of Puerto Rico and adjacent islands is included in Jacksonville District, South Atlantic Division

CIVIL WORKS DIVISION AND DISTRICT BOUNDARIES

- Division and district boundaries are drawn primarily along river basin boundaries because
  - Water resource decisions are dependent upon basic technical, hydrologic, hydraulic and engineering data routinely available by watershed units
  - The mission of divisions and districts is to help manage water resources within river basins

ATTACHMENT 1

MILITARY CONSTRUCTION DIVISION DISTRICT BOUNDARIES


NEW YORK
BALTIMORE
NORFOLK
NORTH ATLANTIC DIV.
SOUTH ATLANTIC DIV.
ATLANTA
SAVANNAH
HUNTSVILLE
MOBILE
MISSOURI RIVER DIVISION
OMAHA
KANSAS CITY
SOUTHWESTERN DIVISION
FORT WORTH
DALLAS
SOUTH PACIFIC DIVISION
SACRAMENTO
SAN FRANCISCO
LOS ANGELES
ALASKA
NORTH PACIFIC DIV.
MILES
PACIFIC OCEAN DIVISION
SOUTH ATLANTIC DIVISION
DIVISION BOUNDARIES
DISTRICT BOUNDARIES
STATE BOUNDARIES
DIVISION OFFICES
DISTRICT OFFICES
HUNTSVILLE DIVISION (NO GEOGRAPHIC BOUNDARIES)
STATUTE MILES
100 0 100 200 MILES

ATTACHMENT 2

TESTIMONY PRESENTED
to the

WATER RESOURCES SUBCOMMITTEE
of the
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

by

Jean O. Williams
Vice President
Camp Dresser & McKee Inc.

and

Project Manager
High Plains-Ogallala Aquifer
Regional Resources Study

August 10, 1981

Sante Fe, New Mexico

Study Concept and Organization

The High Plains-Ogallala Aquifer Regional Resources Study - hereinafter termed the High Plains Study - is a comprehensive resource and economic development planning study of a 225,000 square mile area in six states - Colorado, Kansas, Nebraska, New Mexico, Oklahoma and Texas. The study area encompasses all those Counties overlying in whole or in part the Ogallala Aquifer and associated aquifers. A few adjacent counties with strong economic ties to the irrigated economy of the High Plains area are also included in the economic analysis.

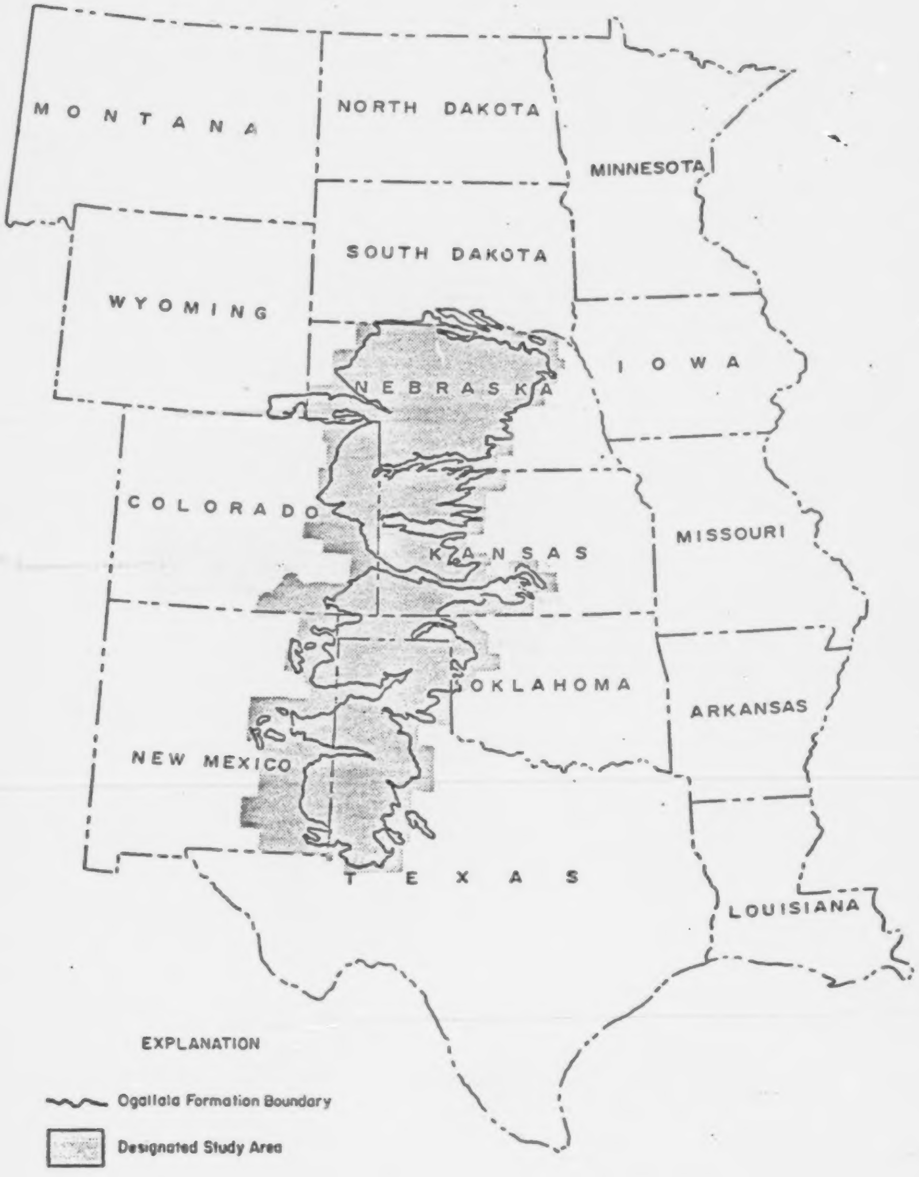
The Region is a vital element of the food and fiber production capacity of the United States. The presently fully irrigated area amounts to about 20% of the total irrigated area in the United States. More than 50 percent of the fed beef cattle supplying the tables of American citizens are fed on the High Plains.

Much of the economy of the region is based on irrigation water supplied by the Ogallala Aquifer.

The irrigation economy has developed mainly since World War II, sustained by regional resources of climate, land, deep and fertile soils, and, until recently, relatively cheap energy. The Ogallala Aquifer has relatively little recharge and thus, the ground water stored over past geologic times is being mined. Some portions of the Region have already exhausted economically recoverable underlying water and have reverted to dryland farming, or have been abandoned. The oil and gas resources of the Region, which have provided the base for a significant part of the total regional economy are being depleted. The cost of energy for pumping the ground water has increased dramatically. Declining ground water levels have also added significantly to the cost of pumping.

Thus, the people of the Region face an uncertain future - diminishing water resources, decreasing oil and gas reserves, and greatly increased costs. It was concern over these adverse aspects and the resultant economic, environmental and social implication to the people of the Region, the States and the Nation, that prompted Congress to authorize and fund the High Plains

SIX STATE HIGH PLAINS OGALLALA AQUIFER REGIONAL STUDY


MONTANA
NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
WYOMING
IOWA
NEBRASKA
COLORADO
KANSAS
MISSOURI
OKLAHOMA
ARKANSAS
NEW MEXICO
TEXAS
LOUISIANA
EXPLANATION
Ogallala Formation Boundary
Designated Study Area

Study, to determine what could be done to maintain the regional economy, particularly irrigated agriculture. Major emphasis was on the water resource aspects since water was perceived as the limiting resource. During the course of the study, it has become apparent that availability and price of energy are driving forces in the future of the Region. This is reflected in some shifts of emphasis in the analysis of regional study results.

This unique and comprehensive resource and economic development planning Study was authorized by Congress October 26, 1976, in Section 193 of Public Law 94-587, with authorization for a $6 million appropriation. The monies were appropriated in fiscal years 1977-78 and 1978-79. Responsibility for the Study was assigned to the Secretary of Commerce. The Economic Development Administration (EDA) of the U.S. Department of Commerce is conducting the Study on behalf of the Secretary.

Not only is the study unique, but the manner in which it is being conducted with Federal, State and private participants has been unusual.

The six states involved together with EDA formed the High Plains Study Council consisting of the Governors of the six states and three representatives of each state appointed by the Governor, and a federal member from EDA. The Council prepared the plan of study in 1977. The Council is responsible for policy direction for the Study, and for preparing final recommendations of the report to the Secretary of Commerce.

Chairmanship of the Council rotates among the six states. Governor Bruce King of New Mexico is Chairman for 1981.

Camp Dresser & McKee Inc. (CDM) was awarded the prime contract for the Study in September 1978. Harvey O. Banks, President of CDM's Water Resources is Project Director. I am the Project Manager. Our associates on the General Contractor team are Arthur D. Little, Inc., Cambridge, Massachusetts and Black & Veatch, Consulting Engineers, Kansas City, Missouri.

CDM is responsible, as prime contractor, for management of the entire Study, for the water resource, environmental, legal and institutional studies, and for the report to the HPSC, due on or before 31 March 1982. Arthur D. Little, Inc., is handling the agricultural, economic and social aspects. Black & Veatch is conducting the energy studies. Each of the six states, under contracts with CDM, is conducting certain research studies. There is continuing interaction among the three firms and between the General Contractor team and the state teams conducting state level research.

The U.S. Corps of Engineers, under separate contract with EDA, is conducting certain studies of interbasin transfer potentials as directed in the authorizing legislation. Our General Contractor studies of interbasin transfers are closely coordinated with the Corps work which is directed by the Southwest Division Office in Dallas, Texas.

Objectives

In authorizing the Study, the Congress and the states recognized the problems associated with the decline, and, over the long-term, probable exhaustion of the Ogallala Aquifer and the economic effects of declining oil and gas reserves. The Study is based on the recognition that the problems are regional in nature with potentially severe national implications.

The Congressional objectives as excerpted from Section 193, Public Law 94-587 are to:

- Assure adequate water supplies to the area.
- Assure an adequate supply of food to the nation.
- Promote economic vitality of the High Plains Region.
- Develop plans to increase water supplies in the area.
- Assure continued growth and vitality of the region.

The High Plains Study Council stated its objectives as follows:

- °Determine potential development alternatives for the High Plains Region.
- °Identify and describe the policies and actions required to carry out promising development strategies.
- °Evaluate the local, state and national implications of these alternative development strategies or the absence of these strategies.

The unique quality and substance of the Study and the necessity for full and continuing interaction among the many players involved in this Study, have been indicated earlier. These include:

EDA, the lead federal agency
Technical Advisory Group - composed of representatives at the Washington level of those federal agencies with interests or programs affecting the Region
High Plains Study Council
State researchers (about 40) and other state studies and programs
General Contractor Team
Consulting Advisory Panel - 12 nationally known experts (Consultant to General Contractor)
Regional federal studies and programs.

Alternative Development Strategies

To explore the various courses through which the states, the Region, and the Nation could achieve the Study's objectives, the following alternative development strategies for analysis in the Study have been formulated.

Baseline

Continuation of current local, state, federal policies and trends; no new state or federal programs. The following positive action alternatives will be evaluated against the projected conditions under this "no action" alternative.

Water Resources Alternatives

Alternatives are listed in order of increasing costs and increasing potential availability of water:

1. Water Demand Management: Encouragement of users to practice conservation through application of proven technology; provide incentives for the farmer to conserve.

2. Water Demand Management: Application of all advanced water and agricultural management technology on a broad scale, identifying any necessary mandatory constraints on uses of water.

3. Local Water Supply Management: Augmentation of water supplies at the local level with techniques such as artificial recharge, vegetation management, desalting, evaporation management, and others. This effort has been scaled down because it did not justify a full scale investigation. There are options possibly available to some states, such as New Mexico in desalinization.

4. Subregional Intrastate Importation Supply Management: Augmentation of local water supplies with interbasin transfers of surface water from sources within the states as available. (Only Oklahoma and Nebraska have viable options for this alternative.)

5. Regional Interstate Importation Supply Management: Augmentation of local water supplies by major interbasin transfers of water from adjacent sources outside the six states as available, possibly providing for expansion of irrigated acreages.

These alternatives are not mutually exclusive but additive in combination. Any interbasin transfer must be planned and would have to be operated conjunctively with the Ogallala Aquifer resources.

In addition to these five water responsive alternative strategies, the General Contractor is examining non-agricultural development opportunities for the Region. In the analysis of the five water resource alternatives, these non-agricultural development potentials are being analyzed to determine the extent to which they may provide economic activity equal to the incremental difference between present economic levels and possible future diminishing economic activity in the agricultural sector.

Desalting, under Strategy 3, has been of special interest here in New Mexico because very substantial amounts of brackish to saline water occur in formations underlying and west of the Ogallala Aquifer. Current technology does not now appear to offer promise of large-scale conversion of these resources for agricultural uses. Energy costs for processing and problems associated with disposal of residual brines are key constraints. However, we are looking at desalting as a possible means of supplying non-agricultural development that may be identified as having potential in the New Mexico area.

For any particular subregion within the overall Region, some mix of the above alternatives will probably prove to be attractive.

Additional water demand management through conservation, water use efficiency technology, and local water supply augmentation practices could be applied at a relatively early date, say by 1985, thus ameliorating the overdraft on the Ogallala. Early-on action to make the most effective use of the water resources locally available is imperative. The High Plains Study Council presented a recommended early action program in this regard to Congress in February 1980 for consideration.

Water demand management is already quite widely practiced throughout the High Plains Region using proven techniques, tailwater control and sprinkler systems for example, stimulated in large measure by the increases in cost of pumping ground water. Local water supply augmentation is being practiced to a considerable extent through playa lake modification.

Further improvements in reducing water demands and increasing local water supplies could be achieved by implementing advanced technologies already known. Some, such as further development and use of crop strains needing less water, may require more research and demonstrations before public acceptance by farmers could achieve widespread adoption.

Interbasin transfer projects, interstate or intrastate, offer potential long-term additions to locally available water supplies. Their implementation, however, will require many years, and the amount of water available for such potential transfers may not be sufficient to meet the future irrigation requirements of the High Plains Region. Thus, the near-term potential for the Region lies in the application of all available water saving and management opportunities while planning for longer - term actions moves through the policy determination and political process.

Study Structure

State Research

Of the $6 million appropriated for the Study, $2 million was allocated to the states for studies to be performed at state level. This work is being conducted under subcontracts between the individual states and CDM. It involves:

- State Agriculture and Farm Level Research
- Energy Industry Impacts
- State Water Resources Evaluations and Research on Impacts of
- Alternative Strategies

General Contractor

The General Contractor team is conducting the regional work, both as original regional studies and, as the state work is completed, to integrate the individual state research results into the overall regional approach. The regional study elements are:

- Interbasin transfers -- in cooperation with Corps of Engineers.

- National and regional changes in commodity prices, shifts in agricultural production, changes in consumer prices and shifts in consumer expenditures.

- Effects and costs of applying advanced agricultural and water management technologies to achieve more efficient use of water.

- Environmental impacts; an EIS will be prepared.

- Technologies for augmenting locally available water supplies and costs.

- Legal and institutional frameworks for implementing alternative development strategies.

- Crop price projections; analyses of total revenue and costs for wide range of commodity and livestock enterprise situations.

- Energy prices and technology.

- Impacts of transition to dryland farming, based on studies of actual cases.

- Regional and subregional potentials for non-agricultural development.

- Evaluation of alternative development strategies.

Preliminary Findings

Preliminary results have been calculated on the alternative development strategies as state research is completed. These results are now being reviewed for internal consistency, for reasonableness, and checked for objectivity of the analytical process. The final report by the General Contractor will include the full analytical process, data, and results. Some changes may be reflected in those results from preliminary findings which have not yet been subjected to rigorous regional evaluation. However, trends for the future included herein appear to be substantially supported by all Study results to date. The results of the baseline activity were presented to a briefing of members of Congress in February of this year. These projections showed a continuing gradual increase in total crop production on the High Plains over the 40 year period to 2020. Returns to land and management, the indicator of potential profitability for the farm operator, also increased throughout the period. Some 5,900,000 acres of currently irrigated land will revert to dryland farming as a result of aquifer exhaustion during the period, although significant amounts of land (mostly in Nebraska) will be brought into irrigated production. Efficiencies in water utilization are projected to increase substantally from 1977 levels. A notable decrease in production of the most water intensive crop - corn - is projected in the Southern High Plains. Projections of remaining reserves in the aquifer at the end of the study period indicated that a further significant decrease in irrigation could occur in the 20-30 years after the close of the study period, not only in the Southern High Plains, but also in Nebraska.

A summary of preliminary findings for the several strategies is in preparation for transmittal within the next week to the High Plains Study Council. If it would be useful to you, we will provdie copies to your staff at that time.

Desalting

Policy Questions

Very important policy issues have been raised by this Study and concurrent federal initiatives. Some of those issues must be addressed by Congress and others by the states.

The alternatives under analysis in the High Plains Study are being examined with recognition of constraints that may hinder their possible implementation. For example,

- The waters of the Missouri River System are already largely committed. In interstate streams from which diversion to serve irrigation in the Study area might be considered, available storage has been committed even where water has not been fully allocated.
- Upstream and downstream states are developing state water plans that will have long-term impacts on projections of water availability for diversion.
- The Ogallala Aquifer has been intensively mined for irrigation pumpage since the years following World War II. Some areas such as in the South High Plains of Texas are already either out of water or water levels have dropped below economically feasible pumping lifts.

Statement of Issues

1. Flow in interstate and intrastate streams has been significantly reduced in the High Plains Study area as pumpage from the Ogallala has lowered ground water levels. In the case of interstate streams, is there need or mechanism for federal intervention to prevent further reduction in base flows? Significant examples of this occur in the northern High Plains area of Nebraska and Kansas.

2. As water levels in the Ogallala Aquifer continue to decline, and as surface application of pumped water is reduced because of economics, riparian habitat will be increasingly impacted. The High Plains Study area is a major flyway for migratory birds. Substantial federal law and policy have been established to protect water critical habitat. Is there a federal interest and appropriate role in intervening to minimize adverse impacts?

3. Major changes will occur in production of agricultural commodities (feed grains, food grains, cotton, etc.) as the result of transition in the High Plains from irrigated to dryland farming. These changes will impact federal policies on agricultural commodity market stability, international trade and balance of payments, inflationary controls, support for agricultural prices and income, and related programs? Would these impacts justify federal intervention to assure continued levels of agricultural production? How could these impacts be considered quantitatively in analysis of the federal subsidy that would be required for interbasin diversions of water?

4. Should promotion of conservation of water and energy in irrigation enterprises be a major federal objective and program? If so, could and should such promotion be built into programs of the Department of the Interior, Environmental Protection Agency, Department of Agriculture, and Corps of Engineers? Should such promotion include research and development aid to states and local districts, education, incentives such as low interest loans, or a mix of these and others built into existing agency programs? What could be the mechanism for getting it underway?

5. Federal policy with respect to recovery of costs of navigation is under scrutiny, but action appears to be moving toward a policy of full repayment of incurred costs. If, in fact, full

repayment of costs of navigation is required of private navigation interests, would this "lock-in" a commitment to navigation of the flows on the Missouri and other navigable river systems? The navigation industry could reasonably argue that through assumption of repayment obligations it has, in effect, a proprietary interest in facilities and streamflows required for navigation. Would there be a federal interest in submitting all navigable streams to a rigorous re-examination on a systems basis of the opportunities for optimizing the total benefits from a mix of water uses? How could this be done?

6. The present administration has emphasized its reliance on the states as a responsible cornerstone of the exercise of federal responsibility. It has effectively moved to abolish the Economic Development Act of 1965 Title V Regional Commissions, and the River Basin Commissions. In the case of the six-state Ogallala region, action by an individual state could have little significant effect in implementing actions with regional consequences. What would be the federal interest in:

   - Continuation of a multi-state regional entity such as the High Plains Study Council as a policy and advisory body?

   - A federal approach to planning and development for the High Plains on a regionalized systems basis?

   - A new federal-state institutional mechanism for multi-state resource planning and management for the High Plains region, upstream source states, and downstream states?

7. Although the High Plains Study preliminary results indicate that the regional irrigation economy can be maintained into the next century, projections of oil and gas reserves indicate that severe adverse declines will have occurred by that time unless significant new reserves are developed. Depletion of the Ogallala by the end of the study period to 2020 will already

have occurred in much of the region, with many other subregions going out of irrigation in the following decade. Study results are clear that long-term reliance (beyond forty years) on the agricultural productivity of the lands of the High Plains must be based on transport of water from outside the region. Experience with large-scale water diversions has taught us that such a time period is needed to achieve the engineering, economic, financial, social, environmental, and political consensus required to move such projects to fruition. Is there a compelling federal interest in making a participatory commitment for that time frame in order to maintain the food and fiber production of the region? Assuming that federal interest, what federal-state mechanism can be established to provide continuity of leadership over such an extended time frame?

Key Conclusions

The High Plains Study has provided an opportunity to test the real world effectiveness of conducting a joint federal - state - private study of a regional problem in advance of calamity. From our perspective as we near the Study's conclusion, it has proven that such an approach is workable, valid, and able to provide results needed by decision-makers to a degree substantially greater than such a Study conducted by a federal agency without state participation might have been. Some problems have surfaced:

° Over the three-year Study period, state and federal elections have resulted in numerous changes in the faces of participants. In this case the High Plains Study Council has provided the basic continuity essential to maintaining the flow of the project.

° With the number of actual research participants, more administrative time was required, than was initially recognized as probable. In this regard, however, the answer was use of reasoned flexibility. We have taken the position consistently that only the final deadline of March 31, 1982 and the total budget of $6 million were absolute. We would work internally with any of the participants within those absolute constraints to make the project work. This approach was based on the realization that we all were learning as the project proceeded, and could adapt study progress as needed to real life requirements.

° Unavoidably, such a Study is conducted in a gold fish bowl. We have tried to stay away from releasing numbers, even as preliminary findings, because the final results will be an aggregation and analysis of numbers from many sources. Discrepancies with earlier or preliminary material can not fail to be noted. Yet the Study is three years long and, understandably, decision-makers have wanted results. We have no ready answer for this problem, except to emphasize the need for understanding that it exists.

Statement Prepared for Presentation to
U. S. Senate Environment and Public Works Committee Hearing
Santa Fe, New Mexico
August 10, 1981
by

Robert R. Lansford
Department of Agricultural Economics
New Mexico State University

My name is Robert R. Lansford. I am a professor in the Department of Agricultural Economics and Agricultural Business at New Mexico State University in Las Cruces, NM. My research programs at New Mexico State University have concentrated in three areas: 1) Water Resource Planning; 2) Natural Resource Planning; and 3) Farm Management.

It is with a great deal of pleasure that I present the following testimony to the subcommittee on Water Resources. I plan to present testimony in the following areas: Energy-Water-Agriculture interface, ground and surface water priorities, agricultural water management and conservation, and the federally sponsored Ogallala Aquifer Study being conducted by the High Plains Associates.

Energy-Water-Agriculture

Continued economic growth in the west depends critically on the availability of adequate water supplies. Policies and institutions must be devised which will permit the growth of high value industries such as energy and recreation, with minimum adverse economic impact on traditional water users, such as agriculture.

Substantial debate has centered around the potential social, economic and environmental impacts associated with future energy resource development and population migration to energy rich areas. The extent and timing of such impacts depends upon a host of variables including relative pricing patterns, federal and state policy toward resource development and land use and technological factors. Yet, little is known of the overall relationship between the market forces, energy policy and energy development patterns therefore these interdependencies among energy resources has been largely ignored. Although numerous energy demand and supply studies are available, few explicitly relate both supply and demand. Therefore, little is known of how changes in the market forces and public policies may alter energy resource development patterns and hence water and land utuilization.

We need a major research effort in the energy resource development regions of the West. For example, the Four Corners Area has about 26 percent of the land area of the U. S. but contains only 3 percent of the population and contains over 50 percent of the nations untapped energy resources. This region will also be experiencing a substantial increase in irrigated agriculture. Surface and ground water resouces in this area are not expected to be sufficient to supply the needs of all of the planned and future developments. In fact, some research has suggested that during low-flow years of the San Juan River there will not be enough water for the energy sector, let alone other uses such as irrigation, fish and wildlife, municipal and industrial uses.

Reasearch is needed whose general purpose is to take a comprehensive look at the planned developments, forecast probable future developments based upon resource availavility and the demand for energy and water, and measure the expected socio-economic impacts in the region. The proposed research shouls be conducted by an experienced multi-disciplinary research team from the faculties of Universities in the states impacted. The research team should include the following disciplines: resource economics, agricultural economics, hydrology, geology, sociology chemical engineering, agricultural engineering, and civil engineering.

Declining Groundwater Aquifers

The declining Ogallala Aquifer in Eastern New Mexico will fairly well put one of our major groundwater irrigated areas in New Mexico out of production by the year 2020. Other areas such as the Southwest Closed Basin, Estancia Basin and possibly the Roswell-Artesian Basin will be affected by declining groundwater levels. A major multidisciplinary research effort such as the $6 million effort funded by the United States Department of Commerce for the six states overlying the Ogallala Aquifer is needed for the remaining grounddwater areas . In addition research is needed to study the impact of saline water intrusion in fresh groundwater aqifers. Additional plant breeding research is needed to develop salt tolerant crops that have an economic potential for saline groundwater areas in the West.

Surface Water

Regional Studies such as the federally funded Ogallala Aquifer study are needed for the river basins in the nation. I believe that river basins can be grouped together based on common problems. For example, the Rio Grande and Colorado River basins have similar problems of over appropriation, salinity, and rapidly increasing population and industry. While in the picific Northwest water resource problems tend to focul on sediment , fisheries, hydropower, navigation, rapildy devel oping groundwater resources; much of the mid-west and eastern U.S. resource problems center around navigation, sediment, water pollution, and urban requirements.

A major research effort on conjunctive use of the surface and groundwater resources of the Colorado and Rio Grande basins is in order. Ways must be found to conserve our limited water resources for the future.

Water Concervation

Ninety percent of the value of crops produced and harvested in the west is grown on irrigated land. Irrigation farmers, using even the most modern technology that is economically feasible, are extensive and intensive users of energy. But irrigated farm products must compete in the national markets with those products produced in the areas where water sources are natural ("dry land" farming). A major plant breeding program is required such as the preliminary work being done by Melton and Wilson on alfalfa where the water requirements for growing alfalfa is drastically reduced but yield is not affected or the work in Illinois where wild grass have been crossed with corn to produce plants with upto 16 ears. Also plant breeding may be effective in reducing fertilizer requirements or increased yields per unit of fertilizer. Also a research and extension program should be developed to increase the on farm efficiency of water and machinery as methods of reducing costs and water depletions.

Ogallala Aquifer Study

I am a research participant on this important study. Much effort has gone into this study both by the general contractors (High Plains Associates) and the state counterparts. The optimistic results that Jean Williams will present on the Ogallala Aquifer Study assumes an expanded research program and budget for Agricultural Experiment Stations and ARS of the U. S. Department of Agriculture even under the Baseline scenerio and a greatly expanded research budget under some of the other scenerios. I believe those results can be achieved with the proper research budget. However to catch up we need even a larger researbh budget in the near term in order to keep agriculture in the High Plains competitive.

The prices for agricultural commodities in the High Plains Ogallala Aquifer study are also very optimistic. They are based on a greatly expanded export base, rising productivity, and a healthy U.S. economy. I believe those projected prices are realistic and puts agriculture in a positive prospect for the future.

STATEMENT

Subcommittee on Water Resources
U.S. Senate Environment and Public Works Committee
August 10, 1981 - Santa Fe, New Mexico

By: Dr. Thomas G. Bahr, Director
New Mexico Water Resources Research Institute
Las Cruces, New Mexico

INTRODUCTION

I am Tom Bahr, Director of the New Mexico Water Resources Research Institute. I appreciate this opportunity to publicly express my views as they relate to the role of research in solving water resources problems, and I am particularly honored to do so in the company of these very knowledgeable and distinguished colleagues. By way of a brief background to indicate where I am coming from, my office is a State wide agency which reports through New Mexico State University and is responsible for coordinating water resources research in the public universities of New Mexico. We are one of 54 State Institutes originally chartered under the Water Resources Research Act of 1964 and I am proud to say that we were among the first to be approved. We administer funds provided by State, Federal and private sources to support research in over 25 academic departments at 5 institutions of higher education in the State. We also engage in cooperative research projects with Universities in other States of the region.

For the past 15 years I have been a researcher and research administrator having served on the faculty at Colorado State University, Michigan State University and now, New Mexico State University. During this period I have had both professional associations and administrative responsibility for the research of about 200 water scientists from many disciplines. What I will do today is try to convince you that a strong commitment to water resources research as part of a national water policy is a vital necessity to the sustained economic growth of our country. In this regard, I am also here to publically express my support for Title

111 of Senate Bill 1095 which makes available water research funding to universities and other qualified groups in the country. Although I am not speaking on behalf of any organized group, I am confident that my views are shared by most of my colleagues in other parts of the country. I am going to first touch on the relative severity of our water problems here in New Mexico, give you some examples of the kinds of research we now have underway along with the what I view as the future impacts of this work, and then finally discuss the value of a water institute program.

OUR BIGGEST WATER PROBLEM: NOT ENOUGH OF IT

Let me start with the first item, that of the severity of our water problems. I'll not dwell on this at length since I know you are well aware of the extent of the problem. One has only to pick up a local paper here in New Mexico to realize that water in our State is a hot issue.

- The City of El Paso has filed suit in Federal Court seeking to obtain supplies of New Mexico groundwater
- Farms on the high plains of eastern New Mexico are having to abandon irrigation wells because of falling water tables
- Cities such as Alamogordo are having to ration water that is already considered to be of poor quality
- Industrial development in the energy field is seriously constrained by water availability.

These of course are only a small sampling of problems in New Mexico but they represent the concerns that surface when there is increasing demand for a finite and limited water supply. A few years ago the State of New Mexico in cooperation with the Bureau of Reclamation completed an assessment of New Mexico's water resources with projections for the future. To make a long story short, this report concludes that there will not be enough fresh water to meet the state's projected demands by the year 2020. That's a very sobering prognosis but one that many would rather ignore. It's my impression that many people think that the problem will simply go away or in some way solve itself. Why not? We were able to put the first man on the moon, weren't we? We were able to build large dams and water conveyance systems to irrigate the west, weren't we? We were able to make this nation the most productive agricultural producer in the world, weren't we? So doesn't it follow that we should be able to solve a projected water crisis? I believe we can but it is not going to happen using todays knowledge and it is not going to happen unless we make a long-term commitment to its solution.

A RESEARCH COMMITMENT

The commitment I am talking about is a commitment to finding new knowledge, new techniques, innovative schemes and new tools so that as a first class nation we can approach the problems with first class solutions. I maintain that the only way we can arm ourselves with a first class tool kit of potential solutions is through a strong and sustained commitment to research.

During the past century we were fortunate in being able to solve many water availability problems by constructing large water projects. The key ingredients here were generally money and satisfactory reservoir sites. I should point out, however, that the design of these projects drew heavily on knowledge gained through many years of research. Unfortunately, today we don't have that many good reservoir sites left and money is in short supply. While additional reservoir projects will no doubt come on line I believe that we are rapidly reaching a point where we will have to look for other methods to alleviate water supply problems. We can't afford to wait until the crisis has hit to start looking for alternative solutions.

WATER CONSERVATION: NEW APPROACHES ARE NEEDED

As you know, the High Plains Study is undertaking an assessment of the feasibility of importing water to the high plains from the Mississippi/Missouri drainage. This is being advanced as one of several options to provide water to a region of rapidly dwindling groundwater supplies. Water for irrigation is, of course, vital to the economy of the region. It is going to be an expensive undertaking no matter how you cut it and after all the numbers are in we may find that importation is not cost effective. Do we have other alternatives? Can we implement, for example, widespread water conservation techniques to forestall the projected shortages? Can we reduce the need for large scale construction projects through more efficient use of existing water supplies? I think that the answer to these questions is yes, but it is a qualified yes.

Water conservation methods are already being implemented but we are rapidly running out of techniques. Irrigation scheduling procedures and more efficient water conveyance and application methods have made great strides and further improvements can be expected. However, as is the case with storage reservoir methods of conservation, even irrigation scheduling and more efficient application schemes ultimately reach a point of diminishing returns. You sooner or later face the fact that if you are to grow a crop you still must supply enough water to meet the minimum demands of the plant you are growing. These demands in many cases can be quite high. Over the years agronomists have strived for maximum crop production with little regard for how much water was needed and through this research we have achieved the highest level of agricultural productivity on the globe. Water was once plentiful and energy cheap. This is no longer true today and unfortunately we are now left with genetic strains of crops that simply use too much water. This type of research needs a new direction if we are to move into the 21st century armed with the right kind of knowledge.

We are just beginning to engage in a search for more water efficient crops and our early findings point to some exciting opportunities. Let me illustrate this with a few examples of research now underway here in New Mexico.

NEW WATER SAVING CROPS: A GENETIC APPROACH

The largest cash crop in our state is alfalfa but it is a very high water consumer requiring roughly 60 inches of water per year. If we were able to reduce that water requirement to 40 inches per year through development of new varieties, the water savings for the high plains of

New Mexico alone would amount to almost 100,000 acre feet per year. At current pumping costs that represents a savings to New Mexico farmers of over $1.5 million per year. Savings to the entire state and other states in the region would multiply that figure many fold. Well, we have almost reached that point in a current research project now underway. Early results reported by our team of New Mexico State University researchers are very exciting and indicate that a new variety of alfalfa can maintain high levels of production on 40 inches of water per year, one third less than normal. That study incidentally was funded by an OWRT Matching Grant of $50,000, State funds of $115,000 and WRC Title III (Federal) funds of about $30,000. That project is now in its forth year and will probably require several more years before the new variety is ready to be released. A cutback in Federal funding at this time on a project that is certain to benefit many states, does not seem to be well advised in view of our current economic situation.

We have another study designed to "domesticate" a common weed into a useful forage crop. The weed is Kochia and it has a nutritive value similar to alfalfa but it requires only about half as much water. The bad news is that it contains a chemical that is harmful to cattle in high concentrations. Through careful genetic selection we believe we can eliminate the chemical and ultimately offer a high quality forage that can be grown under dryland conditions.

Also underway is a project that most would consider to be far out basic research. The study is evaluating the means by which Saltgrass, a common wild grass, is able to tolerate high salt levels in soil. The ultimate objective is to develop this grass a forage that can be irrigated with brackish ground water. During the course of this study, researchers have found what they believe is a plant hormone that may impart salt tolerance to this species. Although it's too early to know for sure, we believe that there is a possibility that by applying this chemical to other plants we may be able to impart salt tolerance in them as well. This was an accidental discovery which is so common to basic research and one characteristic of the way real breakthroughs are made. The implications this are profound!

These are just a few examples chosen from among several similar projects now underway that have the potential to revolutionize the manner in which water is used in agriculture. I should point out that about 90% of all water consumed in this and many other western states is for agricultural purposes. A water savings of just over 10% in agriculture would equal the water used in all other sectors of the economy combined. From my point of view, this is where our major water conservation efforts should be focused.

SALINE WATER: DESALTING AND DIRECT USE

New Mexico has an estimated 15 billion acre feet of saline groundwater, enough to cover the entire state to a depth of over 200 feet. If we could tap this resource for beneficial use the opportunity exists to greatly extend our precious and limited freshwater supplies.

Desalting: The United States has made great progress in developing technologies to remove salts from brackish and saline waters. The technology is still expensive and requires large amounts of energy. None-the-less, some water users may find that desalting is still a cheaper alternative than having to bring in supplies from great distances. While we may not ever find it cheap enough to use desalted water for irrigation, it has a real place in high valued uses such as drinking water and additional research to further lower the cost of the desalting process is needed. There is much opportunity in using innovative solar energy processes for desalting but very little has been done in this area, principally due to a lack of Federal leadership.

Direct Use of Saline Water: A California laboratory has already developed a tomato that can be grown on seawater. Arizona scientists are developing salt tolerant grains from wild plants. Israeli scientists have perfected techniques to produce protein and high valued pigments by culturing algae in brackish water ponds. Here in New Mexico we are investing a considerable amount of effort in basic and applied research to develop salt tolerant crops. If we were able to tap only a small fraction of our brackish groundwater resource and use it for irrigation of salt tolerant crops, we would have a supply that would last hundreds of years. To reach this point will require many years of dedicated research marked with frequent failures and less frequent breakthroughs. Although money will be required, money alone will not solve the problem. The key ingredient will be the stability of funding coupled with a sustained national commitment.

THE STATE INSTITUTE PROGRAM

Since about 1965 there has been a national network of a Water Research Institute in every state that received annual appropriations from the Department of the Interior. Each Institute has shaped its program to meet the individual needs of its host university and unique problems of the state. This program has come under criticism by the new administration and by some in Congress. While some of these criticisms are valid, the many good aspects of the program are often overlooked. In strictly economic terms, the benefits of the program have far outweighed the Federal investment. Application of results from just a few research projects have saved the American public well over a billion dollars. The program has also trained over 30,000 new water scientists and water managers to handle the next generation of water problems.

While cutbacks in water research finding may save a few dollars this year the long term impacts to the economy are sure to be negative. My office now is only able to fund from one third to half of the good proposals we receive and we already receive State appropriations in excess of Federal Appropriations. A loss of Federal appropriations would significantly reduce our ability to complete some of the very promising research I just discussed. Results of our research will have application in many states of the region thus it is not fair for New Mexico alone to carry the financial burden.

Title III of Senate Bill 1095 provides for funding continuity in the water research program and gives some States valuable lead time in coming up with additional financial contributions to the program.

Under the provisions of the Bill perhaps some Institutes may not meet minimum standards for inclusion in the program and be left out. I personally believe that this can do nothing but help the overall program since it is a great incentive to upgrade what may be weak programs in some states.

I just returned last week from a national meeting of the Universities Council on Water Resources, a group consisting of delegates from nearly every university in the country with teaching and research programs in water resources. A resolution was unanimously passed at our meeting which expressed support for Senate Bill 1095. You should be receiving a copy of this resolution shortly.

Events of the past several months have made all of us look inward for a critical assessment of what we do and the value of our programs since for many years now we have taken the Federal dollar for granted. From what I have seen I am convinced now more than ever that the product of our research gets the biggest bang for the buck of any Federal investment I can think of. I would hope that your collegues in the Senate and House share at least some of my concerns and make the needed research commitment to an overall national water policy.

WATER RESOURCES POLICY ISSUES

WEDNESDAY, AUGUST 12, 1981

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Water Resources,
St. Paul, Minn.

The subcommittee met at 1 p.m., in Metropolitan council chambers, Hon. James Abdnor (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator **Abdnor**. We'll call the Subcommittee on Water Resources to order.

Good afternoon. It's an honor to visit the Twin Cities and to welcome each of you to this important hearing. It's particularly a pleasure that Senator Dave Durenberger has been able to join us for the hearing, and also Congressman Oberstar will be coming to the front for his statement. Senator Durenberger has taken a lead in a number of water management issues. His initiative last year in promoting water conservation recognized that clean water is a limited natural resource, one that must be preserved and used wisely.

While much of this hearing will center on our inland waterways transportation system and waterway user fees, we will also discuss broader issues relating to the national water policy. I'm convinced that we must view these specific issues within a broader context: How can we develop the best water projects with the least possible delay? How can we do it with greater State and local participation? I'm hopeful that many witnesses will give us their views on these points, for we must answer them before proceeding with any major project authorization.

As to the issue of the administration's proposal for full-cost recovery of water way expenditures I, of course, have concerns. We must not act hastily or in a way that will damage the American farmer. However, we must deal with reality. We do not have enough Federal money to build and maintain all the water projects that are desired and needed. We may have to develop [illegible] and innovative ways to finance necessary projects. While I share the concerns about the impact of the administration's proposals, I believe we must look for solutions to the real problems we confront. It would be my hope that our witnesses will focus their testimony on positive suggestions for improving our overall national water resources effort.

Again, my thanks for everyone's presence here today, particularly my good friend Dave Durenberger, who has proved such an effective spokesman for the people of Minnesota. Senator Durenberger?

STATEMENT OF HON. DAVE DURENBERGER, U.S. SENATOR FROM THE STATE OF MINNESOTA

Senator **Durenberger**. Thank you very much, Jim. I'm pleased you're here today. It's nice to have a Senator come from South Dakota and try to do some good for Minnesota as well as South Dakota. I know that you are in the middle of almost a nationwide swing on this issue, which includes everthing from Alaska to New Mexico to Minnesota and a variety of other places. So you could be home shaking hands with all those farmers that have to reelect you but instead you're addressing yourself to a terribly important national issue, and we, in Minnesota, are glad that you're a South Dakota Senator dealing with these issues.

Mr. Chairman, you did allude to the fact that because we have user fee recommendations before us from this administration that a good part of the time this hearing will deal with that problem, but we have a much larger problem, and that is, that this Nation as a Nation does not have any sense of its approach to water as a natural resource. I could say the same thing about other natural resources in this country, but water in particular is the one that we can't do without. There is a great headline in a recent National Journal article entitled "If There Is A National Water Crisis You Can't Tell It In Washington." I'd say that that's been true ever since I've been in Washington, despite the fact that people like you and Jim Oberstar—When he was a Congressman—I'm sure spoke loudly to the whole matter of a national water policy of some kind.

We in Minnesota experienced a drought, of all things, in the land of 15,000 lakes, back in 1975, but then it rained in 1976 and it's been raining every year since. So we've forgotten about the fact that we can dry up just as easily as the Southwest.

I think you're familiar with water quality problems that a variety of us have around this country, and, of course, you're here to talk about the transportation problems. But it is really no wonder that we don't have a water policy that relates to transportation and user fees because we don't even have a transportation policy in this country. You and I have been trying to save the Milwaukee Road and other railroads in this country while the highways are going to pot, and as a Nation we just don't appreciate what is a national resource and how we ought to address it and what is best left to State and local government to deal with.

The reason I have been a cosponsor of the Domenici-Moynihan bill is the block grant proposal. The reason that I support your national water board approach to this issue is that I think we ought to define a specific national role in this.

I was saying this to somebody a little bit earlier, that basically if the Federal Government would get out and close up its pork barrel for some of the projects that we're going to hear about here today, just shut down the pork barrel for the whole country, I think Minnesota would have taken care of a lot of its flood control projects by now. In addition to that, it would have integrated a lot of other land use decisions with some of these other decisions. But as long as the pork barrel sits out there in Washington, everybody runs to the pork barrel and sees what they can get out of it. So this whole notion of a block grant with the States and of a national commitment of resources is important.

Finally, the point you made about those of us who are up here at the upper Midwest trying to get agricultural products and a variety of manufactured products out to a world that needs those products, is really important. I'm sure that both the Governor and Jim Oberstar will tell you about the seaway port in Duluth and how user fees are being used, at least in part of our inland water system, to finance the waterway system. They will probably talk to you about some equity, and they will also talk to you about some of the problems that are created when you impose user fees on one part of a transportation system and not on the other, or when you impose it on everybody without equity so that the guy who's at the end of this system pays ten times as much as the person who's at the other end.

I thank you for this opportunity and look forward to the testimony we're going to hear today.

Senator Abdnor. Thank you, Dave. You covered the picture very well. We will be hearing from our witnesses. As a matter of fact, we have 23 witnesses and 3 hours. I don't know if we got overly ambitious. We're going to have to move along as rapidly as possible.

The first witness today is a long-time friend of mine as well as yours, the great Gov. Al Quie. When I went to Washington he was certainly the gntleman I turned to for a lot of advice and I've always been very greatful for it. I'm sure he's got a lot of thoughts on water control. Governor, we're happy to have you here and looking forward to your statement.

STATEMENT OF HON. ALBERT H. QUIE, GOVERNOR, STATE OF MINNESOTA

Governor Quie. Thank you, Chairman Abdnor. Welcome to Minnesota. It's good to see you again after the long association we have had with each other. I am pleased that you have assumed responsibility to bring out the information and make decisions about this important part of our economy here in the State of Minnesota and the Upper Midwest because the water system and lakes are a major commercial and recreational source to Minnesotans. I think you will hear some good testimony today that's going to help you a great deal.

We Minnesotans take great pride in our water resources; both in the quantity and the quality. We live on the water, work on the water, and sometimes we feel so good in Minnesota that when the sky is blue and the air is alive we practically feel we can walk on the water. But we are concerned about it and know that's a great resource for us.

We are witnessing major changes and adjustments in our marketing and transportation systems, however, and farm producers and agricultural shippers and the transportation industry alike are repositioning themselves to provide and efficient and productive transportation system to meet tomorrow's marketing needs.

Chairman Abdnor, in our young days, both being farmers, do you remember how it was where you would harvest at the fall of the year and try to move the crop then? Now farmers harvest and that grain is available on a 12-month basis. The whole marketing system has changed. Minnesota is a marketing center for the Upper Midwest, both your State of South Dakota, North Dakota, as well as ships into Minnesota for moving grain on the waterways. To some extent it reaches out from Montana, and then Wisconsin and Iowa. There are well over 20 million tons of wheat and feed grains and oilseed products that are received in Minnesota for processing or transshipment to other U.S. markets and export facilities. The vast bulk of the grain comes from North and South Dakota; 86 percent in 1977 of the out-of-State grain, and 92 percent in 1979.

Over the past several years the major growth in this region's grain marketing business has been in fulfilling foreign export trade requirements. The demand placed on this region for wheat and feed grain and oilseed products is reflected in the growth of exports from Minnesota to out-of-State destinations. In 1977, 13.5 million tons were exported out of this region. By 1979 these exports increased 60 percent to 21.6 million tons. Nearly three-fourths—72 percent—of these commodities were destined for the Gulf States export facilities or exported through the Great Lakes-St. Lawrence Seaway system. The water transportation industry, including barges on the Mississippi River and vessels from the twin ports of Duluth-Superior, moved 70 percent of our out-of-State shipments. These two waterway systems provide the low cost and energy-efficient transportation for the State's agricultural and industrial commodities.

Mr. Chairman, these brief facts serve to document the strategic importance of the water transportation industry in the movement of these products and to the economies of Minnesota and other States in the Upper Midwest. While we are understanding of the need of the waterway industry to pay a fair and reasonable share of the cost for operating and maintaining public waterways, current legislative proposals are excessive and discriminatory. Farm producers in Minnesota and North and South Dakota are being asked to carry an excessive burden and would be placed at a further comparative disadvantage relative to the other regions in the country if they were enacted.

With respect to the proposed port development bill, S. 809, we recommend that the Great Lakes ports be exempted from this legislation. The Great Lakes-St. Lawrence Seaway system has had, for 22 years, the responsibility to pay back the construction costs as well as tolls to pay for all administrative, maintenance, and operation costs of the Seaway system. As you know, there is additional proposed legislation to increase those tolls. The current proposed port development legislation could have a devastating impact on the Port of Duluth-Superior and seriously affect the marketing of grain as well as iron ore, taconite, and coal. We ought to be pushing instead for that port to be opened all year long, or practically all of the year long, because we think of the fact that the globe now has 4½ billion people and in 35 years, will have 8 billion people and we'll continue to increase production of agricultural products; it needs to move through this port for export to foreign countries.

Now, the proposed waterway user charges on the inland waterway system, which is under Public Law 95-502 which enabled the construction of Lock and Dam 26, entailed a waterway user tax of 10 cents a gallon to be put into effect at stages between 1980 and 1985, as in force right now. And that was really the indication at that time that the users would make some payment for the construction of that lock and dam which changed the principles in which inland waterways were operating from the beginning of this country where the Federal Government paid for canals and other inland waterways without user charges in that way.

Now, this legislation called for two studies on the impacts of user fees, including the impact of such fees on agriculture. The appropriations for these studies, however, were severely cut back, and the portion of the study to determine the potential impacts of user fees on agricultural producers was eliminated. The only analysis available to determine the impact of such a user-fee system has been prepared by the Minnesota Department of Transportation, and we'll submit that for the record, and Bill Newstrand, from the Minnesota Department of Transportation—the manager of ports, waterways, and pipeline planning—will be on one of your later panels.

I would also urge the committee to expand upon our efforts to include other States in the Midwest before proceeding further with this legislation so the impact on their agriculture can be determined from them. The current proposals, amendment 32 to S. 810, translate into an additional freight rate of 20 to 30 cents per bushel at the farm level. Such a farm tax would have a devastating impact on the agricultural commodities of the upper Midwest by increasing their transportation cost up to $90 million.

Mr. Chairman, the State of Minnesota's preference, obviously, is to retain the current fee structure. Before any changes are made, it is imperative that the committee obtain an accurate accounting of the Corps of Engineers' costs that are related directly to the movement of grain commodities and other goods on the navigable waters. Many of the benefits derived from the corps' current waterway expenditure figures are for the common good, including programs like flood prevention, fish and wildlife enhancement, recreation and environmental protection, and as such, should be paid for from other than commercial user charges.

Further, Mr. Chairman, it is important to understand that waterway transportation rates are a stabilizing influence on the entire transportation industry in the upper Midwest.

Capacity constraints in the transportation system and in export terminals prohibit either rail or water from handling all the business; therefore, the general consensus is that the rail rates will generally follow the increase in barge rates caused by the user charge. The end result is that the total transportation bill for our farm producers, whether by land or by water, will increase significantly.

Finally, Mr. Chairman, if and when the proper costs can be determined and equitably assessed to the industry, it is imperative that these fees be levied uniformly throughout the industry and not based on specific segments of the waterway system. Minnesota's and the upper Midwest's products must travel farthest and use all of the locks on both the Mississippi and the Great Lakes-St. Lawrence Seaway systems.

Minnesota and the upper Midwest are called upon year after year to produce food for a hungry world, as well as to offset the Federal imbalance of payments. The public need for our agricultural products cannot be overlooked when determining who pays for what and how much. Our production and delivery systems cannot be overloaded by excessive costs. If they are, they will not be able to do the job when we need them.

So these are really the principles that I would lay out, Mr. Chairman, as you go about your study. There is additional information from the Minnesota Department of Agriculture, the University of Minnesota, and the Environmental Quality Board which I would like to submit for your perusal.

I'll be happy to answer any questions, if you want to do that.

Senator **Abdnor**. We certainly appreciate that excellent statement. I know you speak with a great deal of expertise, being a farmer, and the interest you've had over the years in decent farm prices. This has been a great concern of mine to make sure that the farmers don't become a victim of our new proposal here.

Do you believe that there's value to continue Federal assistance for State water management planning? We've been granting how much?

Mr. **Brayman**.[1] Fifty percent.

Senator **Abdnor**. Fifty percent, about $10 million a year goes back to the States for staffing their water resources.

Senator **Durenberger**. I'd say it for two reasons. If you've got any money we can sure use it. But second, I think it is important for the Federal Government to see that planning does continue as to water use, and therefore have support of the continuation of that funding.

Senator **Abdnor**. Well, we are apparently going to be calling on the States for greater responsibility for water development and the bill that we brought out of committee does call for this. Hopefully we're going to be able to see this through. It does continue on with this funding.

Governor **Quie**. We would like to have as much jurisdiction over the water as we can, and there are some issues to that in the State. Second, we have embarked on a management plan for the upper Mississippi, north of the Twin Cities, where the counties along the river will actually do the management. I think this is something that every other state ought to take a look at because we're at a time now when people are very upset about the Federal Government trying to tell them everything they ought to do. This shows that we do have a trust and respect for them, and they are just as concerned about protecting the water as anybody else; California or New York.

Senator **Abdnor**. Are you familiar with the Domenici-Moynihan-Durenberger bill that they have in Congress, a block grant concept for water development? We'll probably be going into that. We've had some discussions on the subject as we've gone around the country and heard both sides on that.

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[1] Hal Brayman, assistant staff director, Committe on Environment and Public Works.

Governor **Quie**. We have the ability to manage here.

Senator **Abdnor**. We even have proposals go so far as to say that if you're going to use it for development you've got to use it for all water programs, including the waste water program because that's where the big end of our water appropriations has been going over the past 2 years, not into water development, but waste water programs which are also up for discussion.

You made a statement, Governor. I think you said that Senate bill 810 could translate into additional costs of 20 to 30 cents a bushel. I think the gentleman from the Department of Transportation will testify about doing cost studies. We had the budget director, Dave Stockman, before our committee, and I have his statement here. He said the cost of shipment down the Mississippi River will increase about 3 to 9 cents per bushel for grains shipped to New Orleans. Then he went on to say that these farmers who shipped corn from western Iowa or wheat from the Dakotas will feel little or no impact from the user charges. I had some quarrel with that but I didn't have enough of a basis at that time to get into a debate with him. Have you given some thought to how you arrived at that 20 to 30 cents, or is that a reasonable assumption?

Governor **Quie**. Yes; we got that both from the work that the Minnesota Department of Agriculture and the Minnesota Department of Transportation did to try and allocate a cost to it. As I indicated, Bill Newstrand is here, and I look around for anybody from the State Department of Agriculture as well.

But when you allocate those costs you have to bear in mind, if the people who are transporting the goods are going to stay in business, they've either got to get a higher price or they're going to pay a lower price. For it to be a lower price they have to charge the person shipping it down there. Usually they don't charge the person getting it, they charge the person who is shipping it down there, and that's an additional cost. As I indicated, since they are comparative with each other, if you increase it there I expect it will increase the rail charges. So you just can't look at the cost to the ones who are shipping by barge.

Senator **Abdnor**. I appreciate that. That's the kind of facts and information we're trying to get as we go from our hearings because we just want to know where we're going and we want to be fair about whatever we do, whatever steps are taken. I don't think there's any question but that there's going to be user fees. But hopefully they're going to be reasonable ones that we can endure and agriculture can endure and that are fair for all concerned. So thank you very much.

Senator **Durenberger**. Just two short questions. The basic difference in approach here is that the current system, at least as it relates to the river, is to spread cost of transporting commodities across the country as a whole through the tax system. The Dave Stockman approach is: He who benefits pays. I have probably a two-part question. No. 1, is there any middle ground here, or are we stuck with making a decision between these two modes of answering the problem? Secondly, from Minnesota's standpoint, is there a difference between agricultural commodities and other commodities so that maybe we don't use the same approach with all commodities? As a possibility that agricultural commodities are such that even at 9 cents, regardless of who's right, it makes quite a difference. But shipping oil up or coal down, the transportation factor, if you had user fees, doesn't make all that much difference. Do you make a distinction between commodities when you make the argument against user fees?

Governor **Quie**. You can tell by my comments the particular interest is in agriculture and that's something that has been historical in our Nation as well, because even for regulated freight rates, there has been a different rate on agricultural commodities. In fact, it affects the location through the years of flour mills. When flour mills moved from Minnesota to other parts of the country it was because there was a lower freight rate in order to get the wheat there and they could do the milling elsewhere. So all of that indicates that it is more than just the rate itself. You have all kinds of secondary impacts on the economy. What I look at here is primarily on the agricultural side of it to make certain that those commodities get to the foreign markets. That has been a blessing for this country in our balance of payments. If the farmers can't make that money they aren't going to be producing as much because of it.

We used to have a bigger battle and that was whether there should be anything paid or not. We crossed that one a few years ago wherein it was determined on that lock and dam that there ought to be some payment. Perhaps you ought to try to pay the same thing the truckers do on the same cents per gallon. Finally there was a compromise reached that you blend into it and eventually get it up to 10 cents. I think it's better to wait to see how that affects the economy before one makes any changes. Then, as I indicated, it's similar to looking at highways because, there also, government is involved providing the highways. You try to study to see how much the truckers are paying for it as compared to all the other folks, and there's always an argument in there; therefore, it really has to come down to a committee like yourselves who understands the importance of agriculture, understands the Upper Midwest as you do, and then make a decision with the facts that you have available. Right now you don't have all the facts that you can make the decision, and when they don't have all the facts then it's purely political. I certainly feel that these facts ought to be on the transportation industry and then on how much agriculture ought to be paying out of that.

Senator **Durenberger**. Thank you.

Senator **Abdnor**. Thank you, Governor. We appreciate your taking the time to come up here. We're groping for some facts. I do know the implications and what the impact could be. At least in my State the No. 1 industry is agriculture, and I, as a farmer, know we're on a borderline situation with keeping the State in operation and the impact could be devastating.

Governor **Quie**. Could I make one parting shot?

Senator **Abdnor**. Sure.

Governor **Quie**. On the Port of Duluth-Superior, we have some economic difficulties in Minnesota in raising the funds to run the State. But I put it in my budget, we put through $2½ million to improving the facilities in Duluth in order to ship the commodities because we think that is so important to the economy of the State.

Senator **Abdnor**. We're happy for all the information we can get, and we're going to be receiving a study from the Department of Transportation—I think it's been 2 years in the making—through September 30. Hopefully that will give us some assistance. We're interested in hearing from your Department of Transportation. Thank you.

Governor **Quie**. Thank you.

Senator **Abdnor**. Our next witnesses is a longtime friend of mine. When I went to Washington, I was told by everyone that Congressman Blatnik had the best administrative assistant on the Hill. I and my staff were the greenest, so we took full advantage of Jim Oberstar and called on him constantly for help and advice. He's now replaced Congressman Blatnik and doing a fine job.

Jim, do you have a statement for us? Then I know you're going to come up here and sit with us.

STATEMENT OF HON. JAMES L. OBERSTAR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Congressman **Oberstar**. Thank you very much, Mr. Chairman, Senator Durenberger, Governor Quie.

It's really a pleasure to join my former colleague from the House, former colleague on the House Public Works Committee before you made a lateral arabesque north down the corridor of the Capitol to the Senate where you are now in resplendent honor, and glad that you brought this hearing to the place where the issue is and where the needs are. We thank you for having that concern.

The navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways and forever free as well to the inhabitants of said territory and to citizens of adjoining States and those of other States that may be admitted into the Confederation, without any tax, impost, or duty therefore.

That language is taken from the fourth article of the Northwest Ordinance of 1787, part of the Articles of Confederation which governed our country before 1789, covering that territory now known as Ohio, Indiana, Illinois, Michigan, Wisconsin, and part of Minnesota.

Following the establishment of the United States under the Constitution that now governs our country, one of the first acts of the first Congress—we are almost on the anniversary of the date of enactment—was the adoption of that provision of the Northwest Ordinance enacted into Federal law without change. Congress in that manner established clearly and firmly the free waterways policy which has governed our country for over two centuries.

As a Nation we are a people bound to the water, whether the coastal waterways, inland waterways, the Great Lakes, or the gulf, we are a people who have made our way in our earliest history of this country as a sailing Nation. We have made our western expansion on the waters. In the last 4 years the historic policy of waterways forever free has come under attack, not only by the long-term adversary of the waterways—the railroad—but also by the Carter and Reagan administrations and various Members of Congress. I find that curious because 75 percent of the population of this country lives along the Nation's waterways.

Waterborne commerce is the cheapest, lowest cost, most fuel-efficient means of moving people and goods. It is the only one carrying the enormous quantities of goods and materials required to keep our Nation's enormous economic engine operating.

In October 1978, Congress passed, and the President signed into law, the Inland Waterway Revenue Act, and I opposed that act. I finally voted for it, did everything I could to stop it from becoming law, but ultimately the compromise written made possible for use to have lock and dam 26 expansion which is now underway, and to establish—I guess—a principle of contribution but not a user charge by those that use the waterways.

The law set up a 4-cent a gallon fuel tax on barge fuel, which is to rise incrementally until 10 cents a gallon in 1986. The Reagan administration last month asked Congress to raise the tax to 15 cents a gallon in October of this year, and proposes to raise that tax to 34 cents a gallon by 1986. I find that ironic just after the President has finished lobbying Congress very successfully for a $750 billion tax cut to increase the tax on fuel. The Congress is also considering legislation to provide for a 100 percent cost recovery of inland and port operations. In my judgement, having sat in both the Public Works Committee and the Coast Guard Subcommittee of Merchant Marine and Fisheries on these proposals, they are poorly crafted and if enacted would create economic disruption to the Midwest and to the entire Nation.

We had 14 witness panels appear before the Coast Guard Subcommittee on recovery of the $1.2 billion in user charges from the Coast Guard proposed over the next 3 years. Only one panel testified in favor of that proposal; the administration. In our intermodal system of transportation, each mode has its own purposes and its own special characteristics. The unique characteristic of inland waterway transportation is: It is the most fuel-efficient means of transportation. A barge uses 480 Btu's of energy for each ton mile. For trucks that same figure is 2,800 Btu's. For railroads, 650 Btu's. For pipelines, 525 Btu's per ton mile. The current Federal subsidy for inland waterways has been estimated at around $280 million. It could be higher, depending on how you assess the benefits, and the cost could be lower. That compares favorably to other modes of transportation, especially rail. If you consider funding for Conrail, which gets $1 billion a year subsidy currently from the Federal Government.

Barge owners and shippers know that a tax of even a few cents a gallon can mean the difference between cargo being shipped by barge or moved by another mode of transportation. We've seen that happen along the St. Lawrence Seaway. We've seen that happen with the Canadian Diversion. We've seen that happen with the cutting of rail rates, discriminatory rail rates that have diverted cargo to Baltimore undercutting the Port of Duluth time and time again. Farmers know that even a few pennies a bushel extra cost can mean the difference between profit and loss for a year. In 1980 more than half of Minnesota's grain, some 10 million tons, moved by barge. Over a third of the State's fertilizer moved up the Mississippi by barge. The Minnesota Department of Agriculture found that the proposed user fee could increase the cost of transporting a bushel of grain from Minnesota to New Orleans by as much as 20 cents a bushel, and that is a 50-percent increase in the cost of transportation.

At a hearing of the House Water Resources Subcommittee on which I serve, I asked one of the witnesses from the Department of Agriculture what effect he thought the increased user fee might have. He said, "This Department has a responsibility to speak on behalf of farmers, and we feel that farmers would unnecessarily be burdened by having to accept user fees." That came from the Reagan administration. Of course, it was cheered by many of us on the committee.

In addition to decreased profits for farmers, S. 810 would mean increased electric and fuel bills for many Minnesotans because the increased cost of fuel moving up the Mississippi. I found some flaws in this legislation. As I said earlier, I think it is poorly crafted, and it would give the Secretary of the Army the discretion to impose new taxes. That's a function that the Constitution reserves for the Congress. The Secretary of the Army is authorized, but is not limited to, the impostion of license fees, charges based on ton miles, lockage fees, congestion fees, and charges based on capacity of cargo vessels. That, in my judgment, would create what this administration doesn't want to create, the whole new bureaucracy that would have free reign to impose new taxes.

Another problem that I see with the bill is that it would operate on a port-by-port basis. The question is: Should Duluth be then paying the same rate of cost burden as the Port of Buffalo? I think not. Sectionalism would raise as ports would try to out-tax or outdo each other. I think the problems and the disruption would be evident in the entire inland waterway as well as competition between inland waterways and coastal waterways.

I'd like to also address the question of competition in international traffic. I have had a review done of the inland waterways in the European continent. Not a single waterway is required to recapture the cost of operation, maintenance, and improvements. Not a single port along the European coast is required to recapture cost of dredging and port and harbor improvements. The Port of Duluth is competing with the Port of Rotterdam, one of the largest ports in the world, if not the largest. They don't have to recover a penny in Rotterdam while we have to cover the cost of the St. Lawrence Seaway when we have no user fees that would be imposed along the St. Lawrence-Great Lakes system.

In international competition we've seen this, and in the Committee of Merchant Marine and Fisheries, on which I've served. Competition among the international shipping conferences is fierce. Pennies a ton make the difference between winning or losing a cargo. Adding those pennies a ton on the inland waterways through a user fee might mean gross diversion of cargo and traffic to other areas, to other countries, to other flags.

Senator Durenberger made the statement that we don't have a national transportation policy. We could have, we should have if the Carter administration had, and the current administration would, just pick up the splendid work done under Congressman Bud Schuster as Director of the National Transportation Study

Commission, which I happened to be a member of and served with Congressman Schuster, which laid out the signposts and the guideposts for a comprehensive, intermodal national transportation policy system. It's a sound piece of work, a craftsmanlike piece of work, it ought to be a guidepost for all of us on both sides of the aisle. It was a bipartisan effort.

I would just like to harken back to a longtime historic policy of free waterways that's been established on a bipartisan basis. In a December 1839 message to Congress, President Jackson said: "All improvements affected by funds for general use should be open to the enjoyment of all our fellow citizens, exempt from payment of tolls or any imposition of that character." That concept held firm with Abraham Lincoln who, as a Member of Congress, responded to President Polk who proposed to finance—as they then called them—internal improvements with tonnage duties. Lincoln said: "We shall never make a canal by tonnage duties until it shall already have been made a while so the tonnage can get into it." That wisdom holds true today. The policy of toll-free waterways improved and maintained as a Federal responsibility has served to expand the commerce of this country, has made the economy of our country strong, has provided lowest cost high-volume transportation, and in fact, has helped to unify this country.

User fees, tolls, and duties on internal navigation will only burden the people of this country. I think that Lincoln was right, that we shall never make a canal unless the tonnage can get into it first, unless we have the wisdom to continue to prove it effective, this 200-year long system of free inland waterways that have served this country so very well. Thank you, Mr. Chairman.

Mr. ABDNOR. Thank you for that very fine statement. I know you're certainly a well-versed individual on the subject of water and its uses from your many years on the Public Works Committee.

You brought up the Schuster studies that you're a part of. I think we haven't done justice to that. I think sometimes we have so many studies we sometimes don't get around to seeing what we ought to see.

Did they cover water?

Congressman OBERSTAR. Chairman Schuster was appointed by President Ford to head up six Members of the House, six Members of the Senate, six members from the public representing all modes of transportation, who fashioned this report and submitted it to the President and both the House and Senate in the 90th Congress.

Senator ABDNOR. We'll certainly be paying attention. We've got to obtain as many facts as we can to come to some reasonable basis for the kind of water program we expect to carry on. I guess you and I will both agree that the funds are going to be short, and if we really want to carry on we're just going to have to do something different and innovative to make these things possible, at least within the immediate next few years until we get our economy back in order. It is going to be a real challenge. Any questions, Senator?

Senator DURENBERGER. Just a couple questions, Jim. Have you supported the notion of the Great Lakes shipping carrying the cost of construction, operating, and maintenance costs on the St. Lawrence?

Congressman **Oberstar**. I have introduced legislation to convert the balance of the debt on the St. Lawrence Seaway, $101 million, to equity. Give the U.S. Government an equity position as an owner of that waterway in the same manner as the Canadians have done with their $630 million debt, erasing the requirement for repayment of the St. Lawrence Seaway debt, placing that waterway on the same basis of equality with all other waterways. We hope to have that included in legislation.

Senator **Durenberger**. As part of creating the St. Lawrence Seaway, is it not true that there was a certain amount of political support, if you will for users of the facility to carry a portion, if not all, of the constructin costs for the improvements that were necessary?

Congressman **Oberstar**. There is the operation and maintenance of the St. Lawrence Seaway and the capital cost of construction. The only way that the bill could get passed, and the compromise that was worked out between the railroads, the State of New York, and the power interests in New York, was to agree to repay the capital construction costs which were $135 million.

Senator **Durenberger**. So you still believe Lincoln was right, that that construction should have been paid for out of tax funds—rather than by users?

Congressman **Oberstar**. Yes.

Senator **Durenberger**. What is your position on the Tennessee Tombigbee?

Congressman **Oberstar**. I supported the continuing funding of the Tennessee-Tombigbee Waterway.

Senator **Durenberger**. Are you still supporting it?

Congressman **Oberstar**. Yes.

Senator **Durenberger**. So there is really nothing to be learned, if you're coming at it from the users' or the shippers' side, you're still with Congressman Lincoln and you don't think we've learned anything in the last 110 years then that would be particularly applicable to the greater development of inland waterways, other than using the tax base that's spread all over the country?

Congressman **Oberstar**. I think we've learned that the system has worked and that perhaps we ought to be more selective in the project that are approved. But I think that the system, basically, is sound, and perhaps there are projects that ought better to be weeded out along the line before they are authorized by the Congress, and we ought to apply stiffer cost benefit analysis studies. We ought to use more realistic interest rates on the money that is applied to the construction of those waterways than some fictional interest rate that no longer exists, perhaps using a rate of interest at which the Treasury must borrow money today rather than a subsidized amount, might make some proposed new waterway projects not economical. But the principle—I think—is a sound one basically.

Senator **Durenberger**. The last question is with regard to the block grant proposal. What is your position on the Domenici-Moynihan block grant proposal where approximately three-fourths of the current funds that are being pork-barreled just go back to the States on the basis of size and population?

Congressman **Oberstar**. Well, I don't see the public works program as a program in which projects are built just because you want to build a project, just to satisfy some interest back home. I think the St. Lawrence Seaway has paid for itself many times over, and I think it serves little purpose to ship that pot of money, from the Federal Government to the States, giving States authority to do what we criticize the Federal Government for doing. I think we ought to tighten up on the criteria that we use for evaluating projects that are considered for inland waterways; improvements, channel deepening, port projects. Tighten up on these restrictions and continue to operate them remembering that the waterways are not the property of any one State, they are the property of the United States. They are uniquely interstate entities. They serve all the people of this country and they cannot and should not be treated as the province of any one State.

Senator **Durenberger**. I don't want to explain the bill too much further, but I think in terms of what we've been talking about here in user fees, the interstate commerce aspect, that still goes through the so-called pork barrel process—or whatever else it may be called—we're talking about the flood control projects and various other mainly intrastate kinds of projects that are going to be funded through the blocking process and yet your position is the same. You'd rather maintain the Federal decision-making on these intrastate projects?

Congressman **Oberstar**. There is no more hotly contested issue than water rights and usage of water, and even though a project may be entirely within a State, in most instances on a waterway, that ultimately become interstate waters. So I firmly believe that these must remain Federal projects with intensified degrees of cooperation and participation and input from the States. A greater degree of financial participation by port cities that will benefit; a degree of financial participation by States whose citizens will benefit from those projects, but I think it must ultimately remain a Federal responsibility.

Senator **Abdnor**. Thank you, Jim. We will ask you to come up here if you don't have to leave.

Congressman **Oberstar**. I'd be happy to stay for about a half an hour. I'd like to hear the testimony.

Senator **Abdnor**. Our next witness is Don Mosher, who is representing Senator Rudy Boschwitz.

I'd just like to say, before Don sits down, that I know the Senator wanted to be here, but we picked the one day that he had to be out of town. He had a previous commitment.

STATEMENT OF DON MOSHER REPRESENTING HON. RUDY BOSCHWITZ, U.S. SENATOR FROM THE STATE OF MINNESOTA

Mr. **Mosher**. I'd like to read Rudy's statement.

I appreciate the opportunity to comment on the Administration's Waterway User Fee proposals, and I thank the Subcommittee Chairman, Senator Abdnor, of our neighboring state of South Dakota, for coming to Minnesota to hear firsthand how this proposal will impact our local economy.

It is evident to all of us that President Reagan and his Administration have had remarkable success in promoting their Economic Recovery Plan. In his efforts the

President has had my unqualified support. A key to the Administration's success was doing their homework very well in preparing their budget and tax reduction plans and successfully selling those plans to Congress and the American people.

Quite frankly, I do not think the Administration has done as well in developing its waterway user fee proposals.

On February 18, 1981, the Administration sent to Congress a Program For Economic Recovery. In that document was outlined their plan to increase the diesel fuel tax from 4 cents a gallon to 30 cents a gallon in order to recover 100 percent of the costs incurred by the Corps of Engineers. The Administration claimed this would amount to an increase of only four-tenths of one cent per ton mile. That may not sound like much, but when you calculate the cost of shipping a barge full of grain from the Twin Cities to the Gulf, by my figures it would cause an increase of over 20 cents per bushel, certainly a substantial cost increase. David Stockman stopped in by office and I explained how this would adversely impact the agriculture community in the northern region of our country. Apparently other voices were heard as well because the Administration dropped that 30 cents diesel fuel tax proposal and instead sent to Congress a recommendation that the Corps of Engineers recover its costs by other methods such as imposing license fees, lockage fees, and congestion fees.

I have reservations about aspects of this proposal as well.

First of all, the Administration has not yet suggested any limits or guidelines for the establishment of those fees. Congress is simply being asked to authorize the Corps of Engineers to set fees to recover 100 percent of the operation, maintenance and construction costs.

I share the reservations of those who use the waterways commercially; the farmers, coal producers, shippers, etc. This proposal is too general and leaves to much discretion with the Corps of Engineers. There are a lot of important, unanswered questions about this plan. How much will these user fees be? How will they be allocated? How will they impact food prices? How will these additional costs impact competition between transportation modes?

Most importantly, however, is, what criteria will be used by the Corps of Engineers in determining which of its expenses are allocable to commercial navigation?

However, this figure conflicts with a study by the Corps which estimates that only 70-75 percent are for commercial navigation and that up to 30 percent of its costs are for other uses, such as: recreation, environmental quality, fish and wildlife, flood control, hydropower, and so on. The actual costs allocable to commercial navigation is an issue Congress needs to examine further.

Now very recently a third proposal has come forward, this one a variation on the first. The Corps of Engineers has called for an increase of the diesel fuel tax from 4 cents to 15 cents, beginning October 1, 1981.

The diesel fuel tax increase is not intended to replace the user fee proposal, rather to complement it. While this tax increase has more certainty than the user fee proposal as to its application, the impact of this plan remains in doubt.

One specific concern I have about all of these proposals is shared by Senator Abdnor; that is, "How will this proposal impact our agricultural economy?"

Richard F. Walsh, of the Department of Transportation, testified before your Subcommittee on June 16, 1981. In his testimony he states: "It does appear that there will be definite impact on some grain farmers, especially those located near the river. The proposal could add something in the range of 3 to 10 cents to the costs of shipping a bushel of grain from the upper midwest to New Orleans." In his testimony on July 16th, Mr. Stockman estimated the increase cost to be 3 to 9 cents per bushel.

This aspect also needs closer examination. A 9-10 cents increase per bushel is significant. Either the farmer is going to have to accept this increase, which would result in a decrease of farm income, or it will be passed to the purchaser. This additional cost will affect our competitive edge in the world market.

I am very pleased you will be receiving testimony from Davis Helberg of the Port of Duluth and other officials regarding concerns I share about the impact of the deep-draft proposals on our Great Lakes system. The Great Lakes-St. Lawrence Seaway system has been paying full construction, operation, and maintenance costs of the Seaway since opening in 1959; the only federal navigation project or system to do so. Any deep-draft proposal must take into consideration the unique characteristics of the Great Lakes-St. Lawrence system and the impact on the competitive balance not only with coastal ports, but with neighboring Canadian ports as well.

In conclusion, I believe these proposals need further review and analysis. While I have been a strong supporter of President Reagan's budget and tax plans, I have serious reservations about the equity and impact of the Administration's suggestions for waterway cost recovery. It is reassuring that the Senate Subcommittee on Water

Resources, which has jurisdiction over this legislation, is chaired by an individual who shares these concerns. I look forward to working together with Senators Abdnor and Dave Durenberger on these issues that are so important to the Upper Midwest.

Thank you, Mr. Chairman.

Senator ABDNOR. Thank you, Don. I want you to relate to Senator Boschwitz that we appreciate his fine statement and we're happy to have it as part of the record.

Congressman OBERSTAR. If I may say, that's a splendid statement, and I concur with those views.

Senator ABDNOR. Thank you. Our next witness is Dr. Joseph Rossillon, executive director of the Fresh Water Foundation. Doctor, I'd just like to say, I don't want to be short with you, but if you would summarize we would like to take the time to ask you questions. Just go ahead. Your entire statement will be presented in the record.

STATEMENT OF JOSEPH P. ROSSILLON, EXECUTIVE DIRECTOR, FRESH WATER BIOLOGICAL RESEARCH FOUNDATION

Dr. ROSSILLON. Thank you. I have an official statement, and I will summarize to make it brief.

As you said, my name is Dr. Joseph P. Rossillon. I'm the executive director of the Fresh Water Biological Research Foundation, which is housed in Navarre, Minn. We spend our time generating funds to support research and educational programs related to fresh water.

I was asked to come today and present an overview of the water picture nationally as we see it. I think Senator Durenberger is a little uncomfortable that I'm here and not looking for money, and I assure you that I'm equally uncomfortable. I don't like to see this many people together and not ask somebody for some.

I will not be presenting to you scientific testimony but rather the attitudes and concerns of an organization whose motto is "To Keep Our Fresh Waters Usable." I guess if I were to have a title for this presentation it would be "Beliefs Die Hard, Change Comes Harder."

In 1973, we in the United States came face to face with information about our energy resources which suggested that old beliefs, assumptions, and attitudes toward energy were no longer applicable. Since that time we as a people have completed a major change attitude and use toward energy consumption. Unfortunately it's taken us 8 years to do that.

Now it appears that a similar situation is about to occur with our water supplies and I'm not sure we have the luxury of 8 years to adjust. Most of our uses and abuses of water are based upon assumptions that, if correct at one time, no longer apply. All of these assumptions revolve around the primary concern that water should be used for multiple uses and kept usable.

Very briefly, what are those assumptions? Assumption No. 1 is: Water is an unlimited supply; there's more where that came from. What we really know is that we've got in quantity the same amount of water that we've ever had in this universe. The total amount doesn't vary, and that usable fresh water only comes to 2,000 gallons per day per man, woman, and child in the world. In the United States today we use 2,000 gallons per day per man, woman, and child. In 1985 we will be using 2,500 gallons per day which means we're either going to have to steal it, find some new stuff, or recycle. The important thing is to use water to its maximum capacity and still maintain some kind of quality. At the same time we're threatening many of our supplies. As we know, the San Joaquin Valley has sunk 30 feet. The Ogalalla aquifer is being pumped down 2½ feet per year in some places. Houston, Tex., one well has been pumped 8 feet a year for the past 34 years. Houston has now sunk 5 feet and they're having problems with floods that they didn't have before. The Colorado River, which is 60 percent oversubscribed is now so saline that we are involved in a $350 million desalinization plant to make the water quality acceptable to fulfill a treaty with Mexico. Even in Minnesota where we have our land of 10,000 lakes and God and everybody else, we forget that we're one of only four States in the United States that has no water coming into it. It all goes out. We're actually caretakers. Our total supply of water is actually 26½ inches of rainfall a year, and that's why that drought had such a major impact.

New Orleans' quality may not be as acceptable, but they've got more than we do because the Mississippi runs down there after us and that's a thing to remember.

Assumption No. 2 is: Water cleans itself. Water is Mother Nature's sewer system. Everything in the universe eventually ends up in water, and if we want to think of it we should think of it like a septic tank. The water only works, like a septic tank, if three things occur. If it's not overloaded; if you don't kill the bugs; and if you don't introduce something that the bugs don't recognize. Those are the three things that we are perpetually doing with our overuse that breaks down the quality of the water. The two major ones, of course, are chemical overloads and biological overloads that require additional production of bacteria to the grade which keeps a balance, but the balance keeps decreasing in quality each year.

The third assumption is: There's plenty of water for everyone. That assumption only works if people are where the water is; if the local use of the water is compatible to the amount that exists in that location; and if the water is in a usable condition in that location. We, by overmanipulating our water in some places to move it where people are and overusing it in some places, break down that quality.

The fourth assumption is: Everyone does and should have access to potable drinking water. The World Health Organization says that in the world today 75 percent of the people do not have acceptable drinking water. That percentage is increasing in the United States, not decreasing. Just recently, for example, the mayor of the city of Omaha said, "We have to have more water. We don't have enough to drink, so we want to draw down more out of the Missouri River." The Governor of the State of Montana said, "Over our dead bodies." That leads one to believe that maybe we don't have enough potable drinking water for everyone.

The fifth assumption is: That water is my water and I ought to be able to use it as I see fit. In fact, that's not the case. In a Minnesota Supreme Court case that appeared just recently, it was established that, No. 1, you do not own the water under your property; and No. 2, there is a priority system for water use—No. 1 is people consumption; No. 2 is livestock; and No. 3 is for food production. So that's a long way from saying "That water is mine" to saying it not only isn't yours, but there's a priority on who gets to use it.

Now, in addition to these assumptions we have some overriding physical and natural problems in the United States. For example, in the East the primary problems are all quite different. In the East the primary problem is obsolete distribution systems and toxic waste buildup. In the Midwest the major problems are nutrient overloads in our water supplies and chemical contaminations in our surface water and our aquifers. In the West the principal problem is distribution and quantity and storage of water. We're putting a whole bunch of people in places where there never was water and then trying to find some for them. In the coastal regions the principal problem is salt water encroachment because of pumping down the aquifers.

So it's not a simple problem to solve. There's a tremendous multiplicity.

Then what is the solution? I suggest that the solution is we've got to change. We've got to stop doing what we've been doing for the past 20 years. In fact, I suggested one time that if you're 30 years of age and you're normal, probably everything you know about water is wrong. That much of a transition has occurred. We're going to have to change our attitudes, our beliefs, and our uses. If we don't we're going to run into the same situation that we ran into with energy.

I suggest that the principal ingredients for change then are information, education, and incentive programs. Information means research. Research to learn how the water balance is maintained and keep that balance while we use it. Don't keep using it, keep that balance.

We need a mass education program for water in the very near future similar to the programs we established in energy, cancer, and heart disease so people will understand that times have changed.

Finally we need some kind of incentive program to make that change occur, and as we know, usually the best incentive program is a cost-use factor. Biologist Garrett Hardin in his theory called "the Tragedy of the Commons," said "Sky and water become polluted because they belong to everyone; they are free. When something is free people tend to take more than they need."

Maybe some indications I can give of cost-use inequities are that it is estimated that user paybacks on Federal irrigation projects run about 8 percent of project costs. Reports that farmers in Colorado who pay $2.50 per acre-foot for irrigation water rights now sell those rights for $2,000 per acre-foot to the cities of Denver and Fort Collins, Colo. It is estimated that the California Central Valley project loses $79,000 per day. According to the Department of Agriculture, they estimate that the Federal subsidy in California's West Lands District is worth about $1,500 per acre. There's an estimate that the proposed irrigation system for South Dakota when completed, will charge farmers about $3.10 an acre-foot for water that will cost the Federal Government about $131 per acre-foot to produce. Knowing full well that if you change those figures you're also going to have to change the cost of production which means you're going to have to change the cost of food, and that is the ultimate question down the line.

Recently in the sister cities of St. Paul and Minneapolis, in the newspapers we had an interesting situation where the fire chief took some city water to fill the pond in his backyard because he was having a party. Now, that's really no business here or there. The important thing about it was his quote in the paper where he said "I have no qualms about writing a check for this water. Water rates in this city are so reasonable it's ridiculous."

In conclusion, I guess the ultimate water issue question in the United States is not going to be a quantity-quality problem; it's going to be a usable problem. Can we provide enough usable water at the right place, at the right time, of an acceptable quality, at an acceptable and legitimate price?

That, to me, is the real issue.

Senator ABDNOR. Thank you, Doctor. That was an excellent statement. I have several questions but time is short. I will say this: You are right. We do have to have priorities and establish stronger guidelines.

You did mention South Dakota. That's my State. I don't know if I agree with the entire $131 an acre you mentioned. Let me ask you: What would you say about South Dakota, North Dakota, and Montana giving up 2 million acres to prevent millions and millions of dollars worth of damage from flooding in other States? These States lost a lot of tax base giving up 2 million acres and they're not getting a thing out of it. Some of the land is out of production. It was some of the most valuable land they have in the State. Don't you think there should be a committee for something like that?

Dr. ROSSILLON. Absolutely. I realize it's not an easy thing to do, but I think we have to realize that every situation like that that occurs has to have a payback someplace. We could cite as an example the desalinization plant that has to be developed on the Colorado River. Now, the reason we need the desalinization plant is because we used that water 7 times over for agriculture. That's good. That's as it should be. The bad part is that the cost of that desalinization plant isn't reflected anyplace in that product and I think it has to be reflected back someplace in the cost of producing that food or something, otherwise you just keep tacking it on to the national debt and pretend it doesn't exist.

Senator ABDNOR. One last question I want to ask you: Do you believe that the Federal Government can continue to finance water research through a group like the OWRT?

Dr. ROSSILLON. I think research has to be supported by the Federal Government and by others. I'm not as concerned as some are that if the Federal Government gets out of it all research will stop. I don't agree with that. I think we understand the necessity for information, and where the slack is lost one place it's going to be picked up someplace else. But the fact that the changes occur necessitate that we must continue seeing to it that that research occurs. We, at the Fresh Water Foundation, have generated $6.4 million in the last 10 years for research and have given it all away. That's all private funds, so it can be done.

Senator **Durenberger**. I guess first I want to compliment you on your statement, and I particularly want to compliment you on your putting it into the energy context because that's where it belongs. We're at the same stage there as we are with a lot of things in society that either seem to be free because somebody else pays for them, or they fall in the air and water category. But the problem is: Where do you go to get the decision made? Who are you going to trust? Are you going to trust somebody at the local level who adopts the theory that water is free or ought to be free like the Minneapolis fire chief, who I recall is also the guy that said Dave Stockman can't save money by having Minneapolis take over the VA fire department because he was going to charge more to get city service than the $400,000 or $500,000 they were spending out there, or do you go to the State or Federal level to start this whole process of decisionmaking? I see your point, which is that you get everybody's attention if you put the cost associated with the value of the product. But where do you start in this whole process?

Dr. **Rossillon**. I would hope you would start primarily with the education programs, which has the major impact as far as energy is concerned. Once people understood, and it took them a couple years, but once they understood we were serious and the incentives were there, they made their wishes known to the legislature, which is the way the process is supposed to go. Then you react to their opinions. But first of all they have to clearly understand that last year isn't this year. This is a whole new era we're dealing with. We did the same thing in the State of Minnesota. The legislature requested a water planning analysis from the Water Planning Board and they submitted one. It was a first draft and although excellent was really a review of what we've done with water for the past 50 years in Minnesota. Our reaction was, "That's wonderful. Now we're ready to start with the real question which is: What are we going to do now?" This is different. That doesn't apply any more.

Senator **Durenberger**. Thank you.

Congressman **Oberstar**. Thank you. I think you've made a valuable contribution pointing out that the amount of water in this country is constant. That's something we tend to forget. We're never going to have any more than we have today and what we have today we have to manage wisely. Fresh water, as you rightly point out, passing over this country runs about 40,000 trillion gallons a day. Only 650 billion gallons of that a day is usable.

Dr. **Rossillon**. Three-tenths of 1 percent is the way to remember that.

Congressman **Oberstar**. The way we're drawing water down in the West and Far West to serve agriculture and industrial purposes, that ought not to be located there. Nature didn't intend it to be located there. Now you're drawing down the water table 10 to 20 feet in some parts of Texas and southwest Arizona and New Mexico. That will take two to three generations to replenish. We have to rethink more than just water quality. We have to think agricultural policy and transportation policy.

Dr. **Rossillon**. Someone said to me very recently in response to that—Are you saying that water could become the delimiting factor in the United States? I said, "It always has been." We've done everything. We've had some luxury with technology that's enabled us to do what we couldn't do before. But it's always been the delimiting factor. Instead of bemoaning what we lost we should be blessed with what we got in the interim. But it can't last forever.

Congressman OBERSTAR. Flood control projects on the Ohio River since 1935 have saved some $10 billion in estimated property losses that would have occurred without those projects. Yet the attempt at restraint on inland waterways and flood control projects came from the Western States who now want us to build a central Arizona project and others at outmoded interest rates. You've shed some very helpful light on that.

Senator ABDNOR. Thank you, doctor.

Dr. ROSSILLON. I do have a document that just came out this week. It's a scientific statement that I thought you might like to review. Thank you very much.

Senator ABDNOR. Our next witnesses is a panel of water policy issues. Tom Kalitowski, executive director of the Minnesota Water Planning Board. James Harrison, and Kay Whitlock. Would this group please come forward and we'll have you appear together.

Again, I guess I have to remind people that we have a some time constraint here with as many witnesses as we have. They're all excellent, but we just don't have the time. I'll ask you folks to summarize your statements and give us an opportunity to ask you some questions.

STATEMENT OF TOM KALITOWSKI, MINNESOTA WATER PLANNING BOARD

Mr. KALITOWSKI. Mr. Chairman, Senator Durenberger: I'm Tom Kalitowski, chairman of the Minnesota Water Planning Board. I will respect your wishes and try to keep my remarks brief.

I think it's important, however, to explain briefly about the water planning board since its structure is quite similar to some of the options that are being considered on the Federal level. The water planning board is a State agency composed of five State agency heads, three citizens appointed by the Governor, and an independent, full-time chairperson. The board is responsible for coordinating development of comprehensive responses to water and related land resources concerns of the State.

In June of this year I submitted testimony to the subcommittee which stated my conviction that, first, a fundamental requirement of better water planning and management is an ongoing process for establishing policy directions with the focal point at each level of government.

Second, that there is a clear need for interstate communication and coordination structure with Federal involvement and financial assistance.

Third, that State water and related land resources planning and management must be accelerated in the near term and Federal supplementary assistance is required to achieve such acceleration.

In my opinion the first priority in national water policy development must be the authorization and appropriations for a substitute for the Water Resources Planning Act. While I do not necessarily support all of its provisions, I generally prefer the approach which you recommend in S. 1095. The National Board of Water Policy State Advisory Committee is, I believe, a solid idea. However, I continue to be concerned with the establishment of the Office of Water Programs in the Department of the Interior. Secretary Watt has not made water policy reform one of his top objectives, even though he admits that the poor condition of water planning is one of the surprising things he has observed since entering office.

As I stated earlier, it is my conviction that there is a need for interstate communication and coordination structure with Federal involvement and financial commitment. While title IV of S. 1095 authorizes the continuation of basin commissions, I'm concerned that funding be available for Federal involvement. While title II money could be used for basin commission studies, functional Federal participation is not provided for.

If the States are to be prepared for a new role in water policy—such as would occur under the Domenici-Moynihan bill, S. 621—a substantial planning assistance program is essential. I believe that this is not a statement solely in the State interest but one in the national interest as well.

A major thrust of national water policy development must be a determination of how policy directions will be implemented. In other words, the financing mechanism. Major attention is being given by this subcommittee to water project development financing through block grants under S. 621, and the user fees for waterways. There are other considerations I urge you not to overlook in looking at financing national policy implementation on such as Clean Water Act construction grants and erosion controls. To a State such as Minnesota where water problems are sometimes traceable to poor planning or delayed action rather than water shortages, the latter programs are extremely important.

It is intolerable that it takes 26 years to move a typical Corps of Engineers project from the point when a study is authorized to the time construction begins.

S. 621 contains several innovative steps which I support. The block grant concept and the increased role proposed for States are laudible. However, there are also a number of problems which I believe could crop up in implementation. Most importantly, I believe the basic structure provided in a replacement for the Water Resources Planning Act must be in place prior to implementation of S. 621.

In conclusion, I want to clearly point out that the State of Minnesota supports the Reagan administration in its efforts to control the growth in Federal spending and the pursuit of a fiscal policy that will stem the tide of inflation. It is our conviction that continued active Federal involvement in water policy development, regional commissions, and State assistance does not require additions to the total Federal budget. It is really a matter of priorities, and national water policy development in partnership with the States must be a high priority.

Within this priority area I believe that the Congress must concentrate first on authorizing and funding a replacement for Public Law 89-80 based on S. 1095. Second, focus on financing approaches for implementing national policy, including consideration of block grants without cumbersome strings. And third, consider establishing a joint committee structure which better permits Congress to focus on defining national water resources policy goals.

I thank you, Mr. Chairman, and members of the subcommittee for the opportunity to express my views.

TESTIMONY OF JAMES HARRISON, MINNESOTA-WISCONSIN BOUNDARY WATER COMMISSION

Mr. **Harrison**. Mr. Chairman, Senator Durenberger, Mr. Oberstar: The Minnesota-Wisconsin Boundary Area Commission, by whom I am employed, is an interstate compact advisory and coordinating commission on the Upper Mississippi and St. Croix Rivers, and as Senator Durenberger and Mr. Oberstar well know, I've been involved in this complex intergovernmental water resources program for 13 years, which some people think is too long. These activities, however, have had implications and outcomes of national significance for two reasons that are probably pretty obvious. The Mississippi and St. Croix Rivers are recognized in law and in fact as national natural resources; and some of the results of our cooperative, intergovernmental efforts in this region have been precedent-setting and are looked upon by other people in other areas of the country as models.

Let's start with the fundamental question of how much authority will be vested in which action organizations. Of course, historically the U.S. Congress has reserved unto itself most of the water development decisions requiring Federal action. When we got into a brawl in Federal court 8 years ago with the State of Wisconsin suing the Corps of Engineers over alleged illegal and irresponsible navigation channel dredging practices on the Mississippi River, the Federal judge involved issued a temporary injuction for a year on methods of dredging in Wisonsin waters, and then said in his opinion that he did not want to be the one to have to balance the issues in the case. I don't blame him. Our commission, seeking to facilitate a way out of the deadlock, took the matter directly to Members of Congress from our two States who agreed that there ought to be a way to maintain navigation in an environmentally sound manner on the sensitive, multiple-use areas of the Upper Mississippi. Well, the outcome of this was the congressionally-mandated "Great River Study," now on its way to Washington for approval and implementation. A cooperative Federal-State-public effort produced a much-improved, better-balanced channel maintenance plan which recognizes the unique dual navigation and fish and wildlife refuge policy on this reach of the Upper Mississippi. It also produced an out-of-court settlement and created an immense amount of goodwill among agencies and people that had only known how to win by confrontation or intimidation before.

I would just add parenthetically that we went directly to the source of nearly all water management authority, the Congress, to get the job done. Our representative government works to promote and create a water policy arrangement tailored to the needs of this region. It met our needs and proved to others elsewhere that it's possible to work within long-established bureaucratic systems to achieve good results. It's not necessary to create a new agency or institutional arrangement for tasks where there is already a defined, legislated administrative authority. I would personally recommend against any strong, national manager arrangement in water resources. From my perspective it can't be justified unless the principal criteria for doing so is to use water solely as a political tool. That I object to most strenuously. Water is a natural resource and so basic to meeting our human needs that it is tempting to have some kind of hidden accounting system in Washington to do this sort of thing. I am speaking against that kind of heavy-handed manipulation by any branch of the government; the executive, the legislative, or judicial. I think Congress ought to let go of a few of its reins too and allow more local and State initiative and require more local and State responsibility, including dollar investments in water resources development programs.

Speaking from my own experience, I believe people in our region accept the strong, active presence of Federal managers on the major river systems. For example, the Mississippi and the St. Croix. These rivers transcend State boundaries and parochial regional interests. We can't claim them as our very own even though we're at the headwaters. So we do need to be able to interact as local, State, and regional citizens with the national managers in these particular kinds of areas. We need to have assurance that Federal officials and technicians, as Tom said, will be authorized and funded to meet with us and work as a team as we have and still do on these rivers. I am not convinced that we need to perpetuate the basin-commission style of activity, but that's a detail that has to be worked out. Unless it becomes a truly national mechanism, which it did not under 8098, for policy formulation and water allocation.

So if I am against greater or even the same centralized control over water policy decisions and investments, I'm in favor of allowing the States, who share concurrent jurisdiction. Where they share concurrent jurisdiction with one another and with the Federal Government on major water bodies, like the Great Lakes and the Mississippi and the St. Croix, to establish their own interstate arrangement under the constitution with provision for appropriate, coordinated Federal participation at the regional level. As you know, the Upper Mississippi River is the subject of this master planning activity. We believe that this will be a good case study for the Congress to use as a true test of what I am talking about. I'll have this master plan before you, I can assure you, in January. The lady on my left will see to that. Congress will have this master plan and I urge you to seriously consider taking a step of faith to disperse some of the centralized water management authority with requirements of more local and State responsibility and investment. We've shown it can be done this way. I believe wholeheartedly in the axiom that if people help us write a program they should, and will, help us underwrite the program. Thank you.

Senator ABDNOR. Thank you.

STATEMENT OF KAY WHITLOCK, ILLINOIS DEPARTMENT OF TRANSPORTATION

Mrs. WHITLOCK. My name is Kay Whitlock. I work for the director of water resources, Illinois Department of Transportation. I do not have a prepared statement but I will reference the statement which my director presented before the subcommittee last April. I know that Frank has corresponded with you, Senator Abdnor, on a number of issues.

What I would like to do is highlight from that testimony of Frank's some of my favorite pets out of that testimony, and to talk to you about some of the things that he referenced that we've learned a little bit more about since the time that that testimony was presented.

My responsibility at the division of water resources involves coordinating our State's involvement in the three river basin commissions on which Frank represents the State of Illinois; the Ohio River Basin Commission; the Great Lakes Basin Commission; and the Upper Mississippi River Basin Commission. I concentrate more of my efforts because of the national plan on the Upper Mississippi.

Since the March budget proposal which deleted funding for river basin commissions, I've learned a lot about State support for those basin commissions. If you would have come to one of our meetings a year ago and watched us argue you probably would have wondered if we were getting anywhere, but I think we were. When faced with the possibility of not having those river basin commissions, States now sit back to look and see what it is that we do that is important to us. In our involvement in those three, I find that there are four or five concepts or issues which constantly come to the surface as we talk about what it is that we have to keep there. I will go through a few of those. One of those is that the river basin commission gives the States the opportunity to coordinate our water resources planning in between our States and to coordinate data collections so that we can head toward uniformity of that data. The commissions also serve as a very useful forum for the resolution of interstate conflicts, and from time to time I believe we avoid those conflicts because we get to the point of discussion before we ever get to the point of conflict.

I personally feel that the relationships that the staffs of the States have established is very positive and, of course, will stay in the absence of the commissions but won't stay forever. We won't notice that loss for another few years, and those of us who are ambitious are gone, well then the new people won't have those established relationships. I think we'll suffer greatly because of that.

But the most important thing that I personally see in the basin commission is our relationship with the Federal Government. Our relationship with the Federal agencies, the field and regional offices of the Federal agencies on a day-to-day basis. The coordination of our planning efforts with those Federal agencies' planning efforts is very important. That the work that we do as States to try and establish regional priorities is also very important, and the work that we do to try to be sure that the Federal money is spent within the region according to the priorities of the States on those regional projects.

So I would encourage you to look at your own bill, Senator Abdnor, and at those types of water resources legislation and be encouraged that the States feel that these issues are very important and that we must have some kind of way to have this relationship between the States. I feel that in order to insure that we have the Federal agency participation that there needs to be a legal basis for this. The interstates' problems—I believe—we could continue to solve, but we need some form of insurance that the Federal agencies will have the funding and capability to come and sit with us on a regular basis. So I think that that's a very important justification for having a legal base for serving our needs. Thank you.

Senator ABDNOR. Mrs. Whitlock, I appreciate what you said. You think it's fair to say that legislation like 1095 is necessary if we're going to continue on with commissions and State planning?

Mrs. WHITLOCK. I think it's important to have a legal base, so I do feel that some form of replacement legislation is important to continue that, to insure that it is continued.

Senator ABDNOR. It does call for that. I think it will take more of a concern on the part of the States wanting to create a basin in that proposal. If the States don't show the interest it's hard to get them. That's probably part of the trouble now. I don't think the States thought they had enough input.

I was just going to say that the Office of Water Programs, is set up by law and the grants and moneys for the different programs in it has to be to be carried out. But whether we get the Domenici-Moynihan legislation through, let's face it, it will be rather controversial. I'm sure you can tell that.

Senator DURENBERGER. Not here.

Senator ABDNOR. You feel we should still go through with 1095 even though the Domenici-Moynihan legislation doesn't come about immediately at the moment?

Mr. KALITOWSKI. Yes, Senator, definitely. In fact, I think it's appropriate that that precedes the Domenici-Moynihan, if that's the way the course of things is going in Congress. I think that kind of mechanism is particularly important for the States so that there's an assurance of coordination at the Federal level and so that the States' concerns are addressed at the Federal level.

Senator ABDNOR. Mr. Harrison, do you think that the Federal government dictates too much on water policy and programs?

Mr. HARRISON. Mr. Chairman, I think that maybe the emphasis should be that the States need to have more initiative and responsibility. It sounds as though I'm speaking against Federal involvement and I'm not. I'm speaking more in favor of more State responsibility and accountability for what they feel they want. I've been to the capitol in Oklahoma City and I've seen the big portrait of Senator Kerr standing in front of all the water projects. He was successful in representing the interests of his State, and I appreciate that, but they also compete with our agricultural interests up here, and I'm not sure that we need to fund their water supply.

Senator ABDNOR. Well, you work for the Boundary Water Commission. We have a boundary dispute, not only above ground water, but underground water too. We're having a little bit of a controversy out our way regarding the ground water in the Madison formation. There's talk of a pipeline operated by drilling 40 deep wells in the Madison formation. It's right on the South Dakota line. Some of us think that the water level from my State is going to be affected just as much as on the other side. But under our present laws there is very little for a State not directly involved, to say about the water. Only the State where the wells are being dug has that right. Do you think there should be some thought given to something like that? Controlling the water levels; giving all the other States affected by that some participation in what happens to that water?

Mr. **Harrison**. Mr. Chairman, while we don't get involved in ground water issues too much, I think it's all water and the same philosophy applies. I think there's only 4 States in the 48 contiguous States that don't share a surface water body with another State as part of their border. Colorado, Wyoming, Nevada, and Arizona. I can't remember what the other one is. I can't imagine how some of those States can get along without some kind of direct intersection with their neighbors. It usually only happens when there is a big confrontation.

I guess what I'm supporting is a national policy statement, if nothing else, that the States must work together for their own best interests, not as States, but as United States wherever they have an affinity, a natural affinity, whether it's on the Mississippi River—joint jurisdiction—whether it's on the Ogalalla or the Madison Formation.

I grew up 40 miles from Sioux Falls in Worthington, Minn. I know what it means to be water poor in that part of the Midwest, so I agree with you. It's only enlightening for States to do that where they have to depend on each other.

Senator **Abdnor**. It's difficult in the eastern part of my State where it is really limited, and we are concerned about that underground water.

Senator **Durenberger**. I have no questions, Mr. Chairman, but I want to compliment Kay for being here. Thanks to a change in administration and spending cuts and everything else, the whole process of coming to the final report on the Upper Mississippi and lock and dam 26 is moving fast. But Kay is spending all her time chairing that committee. I understand it is meeting today. So we are very pleased that she could take time to be with us today.

Congressman **Oberstar**. I too want to join in expressing appreciation that the great study is nearing completion. I join with my colleague, Governor Al Quie, in shaping that legislation. We wrote the language in the Public Works Committee, and Congressman Abdnor helped us get it through while he served in our body, and now it's reaching completion. That's a great milestone. I think it can serve as an instructive tool for the rest of the country.

Senator **Abdnor**. Thank you, all three of you. We appreciate your being here. My very able staff man tells me we've had seven witnesses so far in 1 hour and 50 minutes. I guess we're going to have to figure out how to move faster.

Congressman **Oberstar**. Mr. Chairman, at this time I have other commitments made. Let me compliment you and Senator Durenberger on the quality of the witnesses, the wide range of interest, and you on the herculean performance of traveling throughout the West to conduct these hearings. You're doing a great service.

Senator **Abdnor**. Thank you, Jim. It's great education for me. Senator Durenberger picked the witnesses, so we know they are high quality.

Our next witness is Don Ogaard, president of the Lower Red River Watershed Management Board, and Chuck Hazama, mayor of the city of Rochester. You can proceed in any way care to. Just introduce yourself for the record. I'm sorry we have to rush everyone along, but I guess I knew when I saw the length of the witness list that we were in for quite a battle timewise because we need all the information we're getting. It's just a matter of time; we need more hours. But you go right ahead. You're Mr. Ogaard?

STATEMENT OF DONALD OGAARD, LOWER RED RIVER WATERSHED MANAGEMENT BOARD

Mr. OGAARD. Right. My name is Don Ogaard. I am the chairman of the Wild Rice Watershed District; the Lower Red River Management Board, and I'm also a member of the State of Minnesota Water Planning Board.

The frustration of coping with Federal water-related processes and attempting to correlate them with State and local interests involved, occupies a large percentage of my available time. Yes. There is a Federal process. It requires a lot of nursing, prodding, and assistance, but it eventually works. The national average time span for the implementation of water projects from inception to completion has been published as 26 years, and I believe Mr. Kalitowski stated that in his remarks.

On the back attachment to my prepared statement which I've distributed is a step-by-step process of that 26-year timespan that normally elapses. That essentially refers to the Corps of Engineers projects and soil conservation service projects.

In my experience, which includes three federally funded projects in my own district, this is substantially correct. In other words, project implementation usually spans more years than the job career of the people working on them.

In 1978 and 1979, the U.S. Government, through its various disaster aid capabilities, spent in excess of $200 million in the Red River Valley alone. The Corps of Engineers has established an average annual cost of $30 million for that Red River Basin. The citizens of the area anticipated a renewed and invigorated effort on behalf of the Federal system to prevent future losses of similar magnitude. They were wrong. The process, as we know it, does not respond in such a manner.

Historically, the Red River Basin has been the subject of many flood-oriented studies. As a matter of fact, I think we've been studied into nonexistence by many agencies. But the disaster status, in the event of need, is the only vehicle that is visible to put actual money to work to correct a given situation. In that case, however, it is after the fact in that the funds are used to assess, rebuild, and restore damaged property. Only a small portion is ever used to prevent future recurrence by assessing the root cause.

The Corps of Engineers responds immediately to forecasted flood conditions and is on the spot to provide a wide range of assistance to the area affected. Funds to pay for their activities appear readily available and adequate for the given conditions.

The Emergency Services Division of Civil Defense has developed an excellent system of cooperation with local units of government and responds with appropriate action. The wide range of activity is carried out to aid affected citizens. As a matter of fact, it becomes common knowledge up in our area that an inborn government system has actually established, and many businesses thrive on the flooding situation.

For those of you who aren't aware of it, the area I come from has been declared a disaster area 16 out of the last 22 years. I don't know if that's a record to be proud of but it is a historic fact.

Recognizing the root cause of the accelerated pattern of flooding in the Red River Basin and developing an appropriate reaction has not been a success story for the Federal Government. Individuals within the various systems know what needs to be done, but the criteria they work under won't allow anything unprecedented to transpire.

Because of the historic failure of the Federal system to comprehend the broad ranging problems of the area and initiate correlated, corrective measures to deal with them, the local citizens reacted in 1976 by forming the Lower Red River Watershed Management Board, the board that I chair.

This board is a joint powers agreement that allows the existing local units of government, with authority under State law to carry out appropriate programs of water management, to join together in the common endeavor of flood reduction. In Minnesota, this unit of government is called a watershed district, and there are eight watershed districts covering the majority of the land within the Minnesota side of the Red River Basin covered under that board.

This board collects funds directly from the local tax roles by levying up to 2 mills ad valorem tax over the area it governs; approximately $1 million a year. A significant impact has taken place. No. The problems haven't been totally solved, but for the first time a focal point of activity has been established. I think that's an important factor. There is a point to go to now to get correlated action. Projects are being built and correlated with the Federal, State, and local governments.

If a procedure could be developed to involve the Federal Government in cooperating with the existing, operating local government unit to aid, assist and fund projects to reduce flooding, the cost of future disasters could be reduced and eventually virtually eliminated.

I might state at this point, that's another point that the local government units have made; that is, to attempt every possible avenue of cooperation with existing Federal agencies.

In 1979 the State of Minnesota entered into an agreement with the Lower Red Board to furnish $1 million through its legislative commission on Minnesota's resources to work toward reducing flood damages by installing water control on various streams in the basin. In 1981 the legislature of this State, again through LCMR, has continued this program by authorizing another $1 million program. The funds so provided by the State match local funds collected from the ad valorem tax I mentioned earlier. Attached to this statement is an analysis of current projects for your edification, and that's a chart actually listing the number of projects of water control that are undertaken, and if you could refer to that for a second—the list is there; the area that it covers; the total cost. In assessing this, obviously by Federal standards it doesn't seem significant. But if is significant because for the first time activity is taking place, projects are being built, and individual areas are receiving aid and assistance in flood flow reduction.

For your information, a similar program has been initiated on the North Dakota side of the Red River, and an ongoing effort is in process to utilize capabilities of both organizations in common endeavor for formation of a basinwide authority in the future. We've held several meetings of this nature. Currently we meet periodically. The latest was the review of the projects, last month, that are listed on the chart sheet.

It is our unified hope that the Federal process can be an integral part of planning, correlation, and action in the future. Thank you, Mr. Chairman, for the opportunity to appear before this committee today.

Senator **ABDNOR**. How are these funded today? Mostly through local activity?

Mr. **OGAARD**. Right. The chart, as it lists, LCMR funds are the State funds out of the $1 milllion. The next funding category, LRRWMB, is the Lower Red fund consisting of the mill levy. The last funding category can be a variety of sources; highway department to assessments.

There's one particular project that's completed in there where $700,000 was paid by local citizens out of their own tax role.

Senator **ABDNOR**. I've got to believe you'd be for the Domenici-Moynihan if you could add that to your construction.

Mr. **OGAARD**. We have the same general belief.

Senator **ABDNOR**. You don't think that the current system of water projects is as good as it could be?

Mr. **OGAARD**. Some of the elements have given us a considerable amount of problems. I'm not the one to complain, with three Federal major projects right in my home area—I'm contracting officer on one of them—however, the major problem exists when it takes in excess of 20 years, up to 30 years, to install projects. You're dealing with a different generation on installation than you worked with on the inception.

Senator **ABDNOR**. We hear this wherever we go.

Mr. **OGAARD**. I've got one at 18 years and one at 30 years for completion. It's a very difficult problem. Whether or not it can be changed, one would hope that it can. In the meantime it serves the purpose.

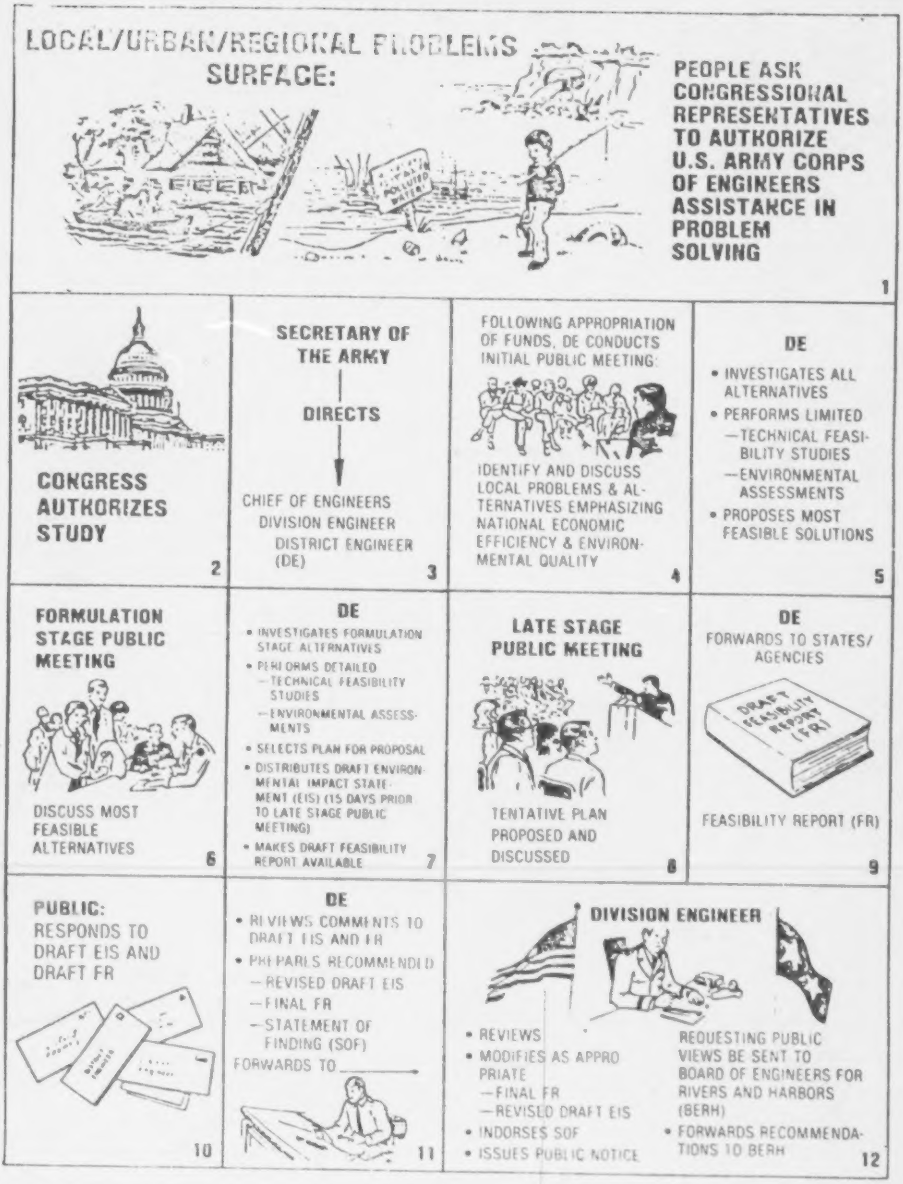
[Attachments to Mr. Ogaard's statement follow:]

PROJECTS OF THE LOWER RED RIVER WATERSHED MANAGEMENT BOARD

Name	Location (District)	Cost	Status	Funding LCMR	Funding LRRWMB	Funding LOCAL
Nereson	The Two Rivers	$441.104.70	1981 Construction	$181,340.35	$141,340.35	$ 40,000.00
Sand Hill #1	Sand Hill River	475,000.00	1981 Construction	225,000.00	231,000.00	19,000.00
Sand Hill #2	Sand Hill River	25,397.50	Completed	12,698.75	10,059.00	2,539.75
Abraham	Red Lake	15,600.00	1981 Construction	2,200.00	4,950.00	4,950.00
Pine Lake	Red Lake	73,000.00	1981 Construction	36,500.00	24,333.00	12,167.00
Lost River	Red Lake	122,395.39	Completed	61,197.39	30,598.00	30,600.00
Odney Flaat	Red Lake	25,000.00	1981 Construction	8,750.00	2,692.50	2,692.50
Olson-Agassiz #13	Wild Rice	706,925.00	1981 Construction	216,000.00	263,000.00	Balance
Flom	Wild Rice	487,595.00	1981 Construction	180,000.00	266,000.00	41,595.00
Wild Rice #10	Wild Rice	217,365.00	1981 Construction	58,500.00	30,000.00	135,365.00
Becker Dams	Wild Rice	800,000.00	Completed	---	100,000.00	700,000.00
Lake Ida	Wild Rice	46,000.00	Completed	---	23,000.00	23,000.00
Shirrick	Red Lake	550,000.00	Possible 1982	$982;186.49	$1,126,972.80	$1,239,834.20
Maple Lake	Red Lake	515,000.00	Possible 1982			

Preliminary Engineering and Site Identification of Projects

Roseau	-3 Potential Sites	
The Two Rivers	-2 Potential Sites	
Middle River	-10 Potential Sites	
Red Lake	-5 Potential Sites	
Sand Hill River	-1 Potential Site	(Create Permanent Lake)
Wild Rice	-10 Potential Sites	(Computer Analysis Completed on Two)
Buffalo-Red River	-3 Potential Sites	(Completed Site Location Analysis)



LOCAL/URBAN/REGIONAL PROBLEMS SURFACE:

PEOPLE ASK CONGRESSIONAL REPRESENTATIVES TO AUTHORIZE U.S. ARMY CORPS OF ENGINEERS ASSISTANCE IN PROBLEM SOLVING

1

CONGRESS AUTHORIZES STUDY

2

SECRETARY OF THE ARMY

DIRECTS

CHIEF OF ENGINEERS
DIVISION ENGINEER
DISTRICT ENGINEER (DE)

3

FOLLOWING APPROPRIATION OF FUNDS, DE CONDUCTS INITIAL PUBLIC MEETING:

IDENTIFY AND DISCUSS LOCAL PROBLEMS & ALTERNATIVES EMPHASIZING NATIONAL ECONOMIC EFFICIENCY & ENVIRONMENTAL QUALITY

4

DE

- INVESTIGATES ALL ALTERNATIVES
- PERFORMS LIMITED
  - —TECHNICAL FEASIBILITY STUDIES
  - —ENVIRONMENTAL ASSESSMENTS
- PROPOSES MOST FEASIBLE SOLUTIONS

5

FORMULATION STAGE PUBLIC MEETING

DISCUSS MOST FEASIBLE ALTERNATIVES

6

DE

- INVESTIGATES FORMULATION STAGE ALTERNATIVES
- PERFORMS DETAILED
  - —TECHNICAL FEASIBILITY STUDIES
  - —ENVIRONMENTAL ASSESSMENTS
- SELECTS PLAN FOR PROPOSAL
- DISTRIBUTES DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) (15 DAYS PRIOR TO LATE STAGE PUBLIC MEETING)
- MAKES DRAFT FEASIBILITY REPORT AVAILABLE

7

LATE STAGE PUBLIC MEETING

TENTATIVE PLAN PROPOSED AND DISCUSSED

8

DE

FORWARDS TO STATES/AGENCIES

FEASIBILITY REPORT (FR)

9

PUBLIC:
RESPONDS TO DRAFT EIS AND DRAFT FR

10

DE

- REVIEWS COMMENTS TO DRAFT EIS AND FR
- PREPARES RECOMMENDED
  - —REVISED DRAFT EIS
  - —FINAL FR
  - —STATEMENT OF FINDING (SOF)

FORWARDS TO

11

DIVISION ENGINEER

- REVIEWS
- MODIFIES AS APPROPRIATE
  - —FINAL FR
  - —REVISED DRAFT EIS
- INDORSES SOF
- ISSUES PUBLIC NOTICE

REQUESTING PUBLIC VIEWS BE SENT TO BOARD OF ENGINEERS FOR RIVERS AND HARBORS (BERH)

- FORWARDS RECOMMENDATIONS TO BERH

12

BERH

- CONSIDERS VIEWS OF
  - — PUBLIC
  - — STATES
  - — AGENCIES
- REVIEWS AND PROVIDES RECOMMENDATIONS
  - — REVISED DRAFT EIS
  - — FINAL FR
- TRANSMITS TO CHIEF OF ENGINEERS

REVISED DRAFT EIS
FINAL FR

13

CHIEF

- REVIEWS BOARD REPORT
- PREPARES HIS DRAFT RECOMMENDATIONS
- DISTRIBUTES FOR OUTSIDE REVIEW
  - —REVISED DRAFT EIS (PUBLIC, STATES, FEDERAL DEPARTMENTS) (45-DAY REVIEW PERIOD)
  - —FR (GOVERNORS, FEDERAL DEPTS.) (90-DAY REVIEW PERIOD)

14

CHIEF

- REVIEWS RECEIVED COMMENTS
- MODIFIES REPORT AS APPROPRIATE
- PREPARES FINAL EIS

15

CHIEF

- FORWARDS RECOMMENDATIONS TO SECRETARY OF THE ARMY FOR CONSIDERATION
  - —FINAL REPORT
  - —FINAL EIS
  - —SOF

16

SECRETARY OF THE ARMY

- REVIEWS
- COORDINATES WITH OFFICE OF MANAGEMENT AND BUDGET (OMB)
- PREPARES HIS RECOMMENDATIONS
- FORWARDS
  - —FINAL EIS, SOF (COUNCIL ON ENVIRONMENTAL QUALITY, PUBLIC)
  - —FINAL FR, FINAL EIS, SOF (CONGRESS)

17

PROJECT AUTHORIZATION

- HOLDS HEARINGS
- INCLUDES IN WATER RESOURCES DEVELOPMENT BILL OR OTHER LEGISLATION

PRESIDENT SIGNS

18

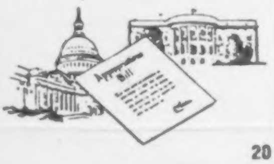
OMB

- REVIEWS CORPS BUDGET
- SUBMITS TO CONGRESS

19

PROJECT FUNDING

- CONGRESS INCLUDES IN APPROPRIATIONS BILL
- PRESIDENT SIGNS



20

LOCAL INTERESTS

GUARANTEE TO FULFILL OBLIGATIONS REQUIRED BY LAW (e.g., REAL ESTATE, COST-SHARING, MAINTENANCE, OPERATION, FLOOD ZONING)

21

DE

- FORMULATES PRECONSTRUCTION PLANNING GENERAL DESIGN MEMORANDA
  - —UPDATES EIS AS REQUIRED
  - —ISSUES PUBLIC NOTICE AND CONDUCTS AT LEAST ONE PUBLIC MEETING
- OBTAINS ADDITIONAL CONGRESSIONAL AUTHORIZATION AS APPROPRIATE
- INITIATES AND COMPLETES CONSTRUCTION
- OPERATES AND MAINTAINS

22

Senator ABDNOR. Thank you.

STATEMENT OF CHUCK HAZAMA, MAYOR, CITY OF ROCHESTER

Mr. HAZAMA. Chuck Hazama, mayor of the city of Rochester. I guess with our frequent trips that we've been making to Washington we've been getting a chance to see our delegation quite regularly, and I suppose you're starting to recognize quite a few of us who are coming from Rochester. Testimony for Rochester's story will be made by our chairperson, Pete Solinger, council member, who is also chairman of our flood control committee. Pete will make our presentation, and we'll limit it to 3½ minutes.

STATEMENT OF PETE SOLINGER, CHAIRMAN, FLOOD CONTROL COMMISSION, CITY OF ROCHESTER

Mr. SOLINGER. Thank you, Mr. Abdnor and Senator Durenberger for allowing us to come here today.

One thing—I have to deviate from my prepared statement just a little bit—is to say that we are adding some color to our presentation today and if you'll note on the cover that is on both sides of this folder, the blue is water as it flows through the city of Rochester.

I'll start toward the rear end of the prepared statement that I have to say that Rochester's mayor and common council firmly believe that legislation for flood control in Rochester should stand on its own merits, not as part of a Water Resources Bill. We strongly favor the type of legislation as contained in Senate file 621, the Domenici-Moynihan-Durenberger bill which would allow State distribution of funding for the flood control projects.

The Army Corps of Engineers' plan is in the final planning state for Rochester, and as was mentioned earlier, it has been about 26 to 28 years since that planning state was begun. Frustration is a key word in all of this, and I'm sure this is why the bill is being introduced for this block grant program because the Federal Congress has not been able to authorize water project bills for the past 5 years, since 1976. Construction can proceed in 1984 as projected if it is passed through Congress this year.

We are also concerned about the SCS plan which has been authorized but is tied up in the Office of Management and Budget, waiting for a guideline to come from the President's office. Planning is a major portion of Rochester's flood-control package.

A short review on what has happened in Rochester in the past since 1978, 3 years ago. The Zumbro River, flowing gently through Rochester, provides an almost pastoral setting and an interesting focal point for the community. However, this river, swollen to excess, and can go on a rampage. This was the case at Rochester, Minn. during the night of Wednesday, July 5 and the early morning, Thursday, July 6, 1978.

Rochester is located in southeastern Minnesota in the heart of a prime agricultural area. The city was built at the confluence of Bear Creek, Silver Creek, Cascade Creek, and the south fork of the Zumbro River, and has a population of about 60,000.

I would just like to interject here and deviate from the prepared statement somewhat—Representative Oberstar mentioned earlier in the first presentation made by him today about people of the water. He is so right, because people of the water—it seems—are all over. Each city in the old days as they were formed were formed on either waterways or railroads or wherever they ran. There were other cities and communities known as inland towns that didn't have any of this type person.

The world-famous Mayo Clinic, which employs over 5,000 people, along with many hospitals and other clinics, are located in Rochester. The city is also the home of a major IBM manufacturer and development facility which employes approximately 5,000 workers.

The greatest threat of flood in Rochester results from the severe thunderstorms which are highly unpredictable and can cause rain at tremendous rates far exceeding normal stream capacity. The 1978 storm put the equivalent of 5½ inches of water over the entire watershed area with over half of the watershed receiving between 6 and 7 inches of rain. This rain fell on soil which was generally saturated from the rains of the preceding week resulting in over 60 percent of the rain running off into streams. As recently as 1 month ago, July 1981, Rochester was spared a similar occurrence when over 6 inches of rain fell. I believe it was 7. We were extremely fortunate because the soil conditions at this time allowed absorption of the intense, heavy rainfall. We didn't have hardly any flooding at all.

In 1978, two-thirds of the community was affected by the flooding, including 2,500 residences which were directly affected by flooding. The major impact of this flood was the threat to the public health and safety. A nurse's aid and three elderly women in wheelchairs drowned when their elevator at the nursing home near their creek dropped into the basement filled with water. A fifth person drowned in a car which was swept off a county road 10 miles southwest of the city.

Here is something I especially want to note which relates directly to what I figure is cost benefit for any project.

Over $60 million of property damage resulted from the flood. Since the flood, recent figures show that there are now 2,411 flood insurance policies in effect with a total premium payment of $263,750, for a total insured coverage of $82 million, $75,000, which is far and above the $60 million damages that recorded in 1978. I think this reflects on what benefits could be from flood control projects.

By the way, the package introduced for the flood control project bill is—I think the Federal share is $62 million right now. The total road and bridge damages in the affected five-county area were about $5 million.

I have a little bit left on this, but it is not necessary to repeat it. You have it in your prepared statements.

Senator **Abdnor**. Fine. I'm sure your full statement will be put into the record.

Mr. **Solinger**. Thank you.

Senator **Abdnor**. Tell me, if the Domenici-Moynihan legislation went into effect and the block grant money was sent to Minnesota, would Rochester get the funding immediately out of that? Would it have that priority?

Mr. **Solinger**. We're not exactly sure what the State's share of this bill was. As I understood it previously it was a $1 billion demonstration grant bill to be distributed among the States according to land and population.

Senator **Abdnor**. That's one of the variations of it. I think it would be whatever we had to appropriate. Whatever this share is. About a billion and a half for construction. I think it will be that in another year because I think that's what the budget will show. I don't know the exact formula, but Minnesota would participate according to area and population.

Senator **Durenberger**. If you went with the original proposal, which was—as I recall—three-fourths of the $4 billion went back to the State, and you don't bother goofing around with demonstrations because there's this sort of example all over the country on a population and geographic basis, we would have gone from about $22 million a year up to about $80 million a year. I don't think that there's any question that both of the projects before us today would have qualified.

Mr. **Solinger**. I do believe that it could possibly cover it because it would be stretched over a period of 8 to 10 years.

Senator **Abdnor**. I guess that's one of the things I'm saying, regardless of Domenici-Moynihan, to put the emphasis either back on the State to make the decision, or from Washington. But would Rochester's projects be the top priority in Minnesota?

Mr. **Hazama**. We just can't determine that. We hope that it would be one of the top projects, that we could look forward to getting funding.

Senator **Abdnor**. You were mentioning something about the delays. Was there some unnecessary delays in some of the details that caused it? In designing this project you've been 10 years in the planning, you said?

Mr. **Solinger**. Well, it's a little over 10 years now. In fact, the initial impact on the whole flood control project goes back to 1936. I really hope that we could make headway and make some impact in trying to get it resolved within the next few years. I would just like to state some of my frustrations and the mayor's and the council's frustrations over the years. I have been on the flood control committee for Rochester ever since I've been on the city council, which is 5 years now, and have been working every year in legislation for this. Now, as I mentioned earlier, in 1976 was the last public works water resources bill passed. Through the Carter administration, the Presidential policies and guidelines, it really tied up Congress. We have gone out there to work and at some times have been reassured that we were going to have a project go through, but it seems like it went through one time and it was vetoed. Another time it came through and got put off until the tail end of the session and by the time it came up for floor action there was no longer a quorum there to vote on it. We've had these types of frustrations. Then besides, no one is there really knowing what the guidelines are going to be because the President has proposed a new cost, Federal-share ratio to the local shares and it is still up in the air.

So as I understand it, this year the water resources bill is again in trouble and probably won't even get to the floor.

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Senator **Abdnor**. We haven't had any new water bills really for several years. You're right. Now we're at a standstill. The passage of legislation such as S. 1095 is one possibility.

Senator **Durenberger**. Mr. Chairman, the reason these are here is that they are—I suppose—some of our best illustrations of frustration. I would add to Don Ogaard's comments. Is that 16 out of 22 years? Well, that's 16 years for politicians to run up the Red River Valley and stand on sandbags and have their pictures taken. Meanwhile, five people die in Rochester in floods, and you can go on and on and on with these costs.

There is an alternative to the Domenici-Moynihan, and that is to just get rid of the Federal financial involvement in these kinds of projects, period. I mean, just stop it. If we knew that we weren't going to get ripped off of our money by $3 billion worth of cloning the Mississippi down at Tennessee Tombigbee; if we knew that they weren't erecting statues to Bob Kerr in Oklahoma and everybody was on the same basis, none of these people would even be here because those projects would have been taken care of.

You heard about the watershed district and the willingness of the State and local governments to work together on these things. I think sooner or later we've got to make a decision on who plays what role so the people with the problems can go about solving them.

Senator **Abdnor**. Thank you, gentlemen.

We now have a group of agricultural experts: Edward Slettom of the Minnesota Association of Cooperatives; Deni Butcher, North Dakota Department of Agriculture; K. R. Tolonen, of the Minneapolis Grain Exchange; Don Knutson, Minnesota Farmers Union; Ralph Prescher, Minnesota Soybean Association; and Richard Kruse, Minnesota Wheat Growers. I know you folks have a lot to say so I'm sorry if I may have to try to hold it down so we can ask you questions and to summarize your statements. But as I said earlier, I assure you all that your entire statements would be placed in and made a part of the record. We also will, in case you're interested, keep the record open for 2 additional weeks if you care to submit anything additional.

So with that, whoever wishes to start off, may.

STATEMENT OF EDWARD E. SLETTOM, MINNESOTA ASSOCIATION OF COOPERATIVES

Mr. **Slettom**. Thank you, Senator Abdnor and Senator Durenberger. We appreciate very much your coming to Minnesota to hear our views.

My name is Edward E. Slettom. I'm speaking in behalf of the Cooperatives of Minnesota and our association which represents 460 cooperatives. I'm pleased to present testimoney concerning the impact of higher waterway user charges on the Minnesota Cooperatives and their farmer member owners. Waterway transportation not only has an impact on agricultural products shipped out and imports transported to Minnesota, but also on the entire economy of this State and Nation.

Agriculture in Minnesota is a substantial part of the State's economy. The gross farm value of Minnesota-produced food in 1980 was $7.6 billion. Approximately 33 percent of our work force is either engaged directly in farming or in allied industries which process farm prodcts or manufacture and distribute imports for agricultural production.

Despite the fact that we have all of our forests and lakes and mines, Minnesota still ranks fifth in the Nation in terms of agricultural production. Approximately 75 to 80 percent of our farm production is marketed to national and international markets. Substantial amounts of fertilizer, chemicals, and other production inputs must be transported here to bring about that production.

According to the August 5, 1981, Minneapolis Star, "Three-quarters of the grain that leaves Twin Cities' terminals goes by barge. As much as two-thirds of all export grain leaves the country" by way of "the Mississippi."

Looking at the statistics for farm products moved from the Upper Midwest by barge for the first half of 1981 indicates how much money it might cost farmers if much higher waterway user fees were to go into effect immediately. According to the Minnesota Department of Agriculture, 142 million bushels of grain and oilseed with a value of $568 million left the State by barge for the first half of 1981. Although no one knows what full cost recovery would add per bushel, it has been estimated as high as 30 cents a bushel to ship grain from Minneapolis-St. Paul to New Orleans. If that were to happen, the added cost to farmers to ship their products for just the first half of the year would be a whopping $42.6 million. This would be a cost which would hit hardest the farmers in the Upper Midwest where the grain is marketed through cooperatives or through other firms. It is not a cost that can be passed on to the ultimate consumer.

Waterway transportation provides an efficient, energy-conserving mode of transportation which farmers need. It is valued because it is freely competitive. The courts and Federal agencies don't sit in judgment on who should use the rivers and who should be excluded. The waterways are the lifeblood of the Upper Midwest. They allow our products to be competitively priced in the world market.

It's been estimated that 25 to 30 percent of the cost of maintaining the waterways are not related to commercial transportation. These functions benefit the public at large and include boating, recreation, flood control, generation of power, conservation of water for cities, and protection of game, fish, flora, fauna, and wetlands. We feel that the true costs of all uses of the river be accurately determined before placing additional charges on the agricultural community.

Senator Abdnor, Senator Durenberger, we thank you again for allowing us to bring to you our concerns about the effects of higher waterway user charges on agriculture in the Midwest.

Senator ABDNOR. Do you think it is humanly possible to break this down as to the percentages? Let's say a project could be assessed for user fees, how much for the recreation; how much for flood control. Do you think that's possible to do it? Have you been giving it much thought?

Mr. SLETTOM. I have not. It would seem to me that it would be possible in some of these cases. Our feeling is certainly that it shouldn't all be assessed to commercial transportation. These other items should be given some value. Maybe it will just be a guess in some instance.

Senator **Abdnor**. That's what we're trying to work on, and all the help we can get the better because there are studies going on right now and we're waiting for them to be completed. I think, you in Minnesota, will hear of one this afternoon which I'm anxiously awaiting to hear of. Thank you.

STATEMENT OF DENI BUTCHER, NORTH DAKOTA DEPARTMENT OF AGRICULTURE

Mrs. **Butcher**. Thank you Mr. Chairman, Senator Durenberger for the opportunity to comment on proposed legislation involving waterway user fees. I'm presenting comments for the commissioner of agriculture for the State of North Dakota.

The importance of a viable transportation system for marketing of North Dakota agricultural products is daily assuming even greater proportions as the world looks more and more to the American farmer to answer the needs for increased food supplies. What concerns agriculture automatically concerns our national economy. Agriculture is the Nation's largest employer with 23 million people employed in agriculture related jobs representing one-fifth of the national labor force.

The agricultural industry accounts for 20 percent of the gross national product and contributes more to the strength of our position in the world's economy than any other sector of American commerce.

In North Dakota, $7 out of $10 are generated by agriculture or related industries. In 1980 our State ranked ninth in farm exports. Sixty-three percent of the total U.S. sunflower exports come from North Dakota, and we ran second to Kansas in wheat exports and are running neck and neck this year. This year we will rank first, I say "neck and neck" but we will be first.

Since at present more than 20 million bushels of North Dakota wheat, durham, and sunflowers are being shipped by water from Minneapolis each year, the impact of proposed waterway user fee legislation is a matter of urgent and vital concern. Not only to our farmers but to the whole State of North Dakota. It has been estimated that the proposed legislation under consideration by your committee would result in a 20- to 30-cent per bushel cost to the agriculture shippers. The alarming and disastrous consequence to North Dakota farmers and to the economy as a whole would be a $4 million cost per year based on present volume on a primary impact base only with no consideration being given to what the secondary and tertiary effects on our agricultural based economy would be as this $4 million moves through the economic cycle.

It is our belief that the Federal cost being suggested for recovery from waterway shippers is excessive. If shippers are to be assessed for all operation and maintenance costs, consider carefully what would happen if any one of the 26 antiquated locks on the Upper Mississippi should break down. Alternatives for bypassing dams and locks are not available at this time. Rails and roads are not capable of taking up the slack, so who pays and who benefits?

The movement of agricultural goods benefits all taxpayers. The national balance of trade is carried by the agricultural exports.

Therefore, we believe that it is of utmost importance that the true navigation costs be carefully identified and that all waterway users pay an equal share.

It is urgent that a cost allocation study be taken by the Corps of Engineers before proceeding with waterway user tax legislation. We understand that the section 205 user charge impact study being prepared by the Department of Transportation, to be presented on September 30, 1981, does not include substantive information regarding the potential impact of user fees on agricultural producers.

Another significant consequence of the fees would be the result of the diversion of shipment of a substantial proportion of agricultural products to other modes of transportation. Our concerns are twofold here: We question the capability of railroad systems and highway systems to handle such increased traffic at that time when there is proposed legislation to cut Federal highway spending and when many railroad lines are announcing cutbacks in services. We are apprehensive about rail pricing policies and the level of rail subsidies which would impact negatively on not only the barge industry but shippers.

We believe any waterway using tax must be considered as a part of a total national transportation policy in order to achieve proper balance between competing modes of transportation. Of the two basic waterway user charge options under consideration, we believe the uniform tax will be most beneficial and least damaging to the agricultural interests in the Upper Midwest. On the other hand, we find the segment toll option totally unacceptable because it completely eliminates a number of rivers for agricultural shipment, including the Upper Mississippi and the Missouri, and would, in our opinion, prove disastrous to agriculture in North Dakota and other agriculture producing states of the Upper Midwest.

Agriculture producers cannot, as most industrial producers can and do, pass on their increased costs. So I urge your committee to proceed with extreme caution in the imposition of waterway user fees which could severely impact on North Dakota and on all States whose agricultural output forms such as indispensable and integral part of out national economy and which vitally assists our Nation in retaining its world position. Thank you.

Senator Abdnor. Thank you, Mr. Tolonen?

STATEMENT OF K. R. TOLONEN, MINNEAPOLIS GRAIN EXCHANGE

Mr. Tolonen. Thank you. Senator Abdnor and Senator Durenberger. We appreciate the opportunity to be here before your committee and to have to chance to let you know how the Minneapolis Grain Exchange and its membership feel with the topic of increased waterway user charges.

I'll start out by introducing myself. My name is Kenneth R. Tolonen. I'm the director of transportation for the Minneapolis Grain Exchange with offices at 130 Grain Exchange Building, Minneapolis, Minn.

The Minneapolis Grain Exchange is a Minnesota nonprofit corporation located at the Grain Exchange Building in Minneapolis, Minn. The exchange is the world's largest cash grain market. Its more than 400 members represent a broad cross section of northwest agribusiness, including grain producers, operators of country and terminal elevators, commission companies, merchandisers, exporters, flour millers, and other processors. Members of the exchange operate flour mills and terminal elevators at Minneapolis-St. Paul, Duluth-Superior, and elsewhere in the region. They also operate country elevators in the grain producing area tributary to the Minneapolis market. They and other segments of the agribusiness community use the Minneapolis market in the sale and procurement of most of their northwest grain and grain products.

In making this statement on behalf of the exchange I'm compelled to stress that the grain trade has no bias or prejudice among transportation modes. We use whichever mode can best get the job done, and on its long journey from farm to ultimate consumers somewhere in the world, practically all grain transportation is intermodal. We use all the modes and we need all the modes. The topic today is inland waterway user fees so my comments will be centered on barge transportation and its vital effects or importance to the Minneapolis Grain Exchange and its membership.

Minnesota's rivers, particularly the Upper Mississippi, the Minnesota, and the St. Croix, have been major transportation arteries for hundreds of years. Today commercial barge navigation is a vital factor in the economy of the whole Upper Midwest and, in fact, the entire Nation. It is probably the safest and most energy and labor efficient of all the modes for the movement of large quantities of bulk cargo, and it has a minimun of adverse environmental effects.

It is common knowledge that President Carter on October 21, 1978, signed legislation which ended the Federal toll free waterway policy in effect in this country for some 200 years. That legislation authorized a shallowdraft waterway fuel tax of 4 cents per gallon effective on October 1, 1980, escalating to 10 cents per gallon in 1985.

It's also common knowledge that the present administration is proposing an immediate, October 1, 1981, 15-cent-per-gallon tax on diesel towboat fuel with other unspecified license fees, segment fees, lockage fees tolls, and charges based on cargo capacity. In addition, the administration seeks full cost recovery, 100 percent, of the expense of maintaining the public waterways.

The point of importance here in our view is the fact that the inland river system provides our membership in the entire agribusiness community with an opportunity to compete effectively in world markets, which ultimately results in maximum earnings for producers, and any increased form of river fees would without a doubt reduce the producer's earnings. The plain and simple fact is that although the Government may collect higher user taxes from all the carriers on the inland waterways, it will be the Nation's producers who ultimately pay these higher user fees.

One doesn't have to be a cost expert to be aware that a 1-cent-per-gallon tax on diesel fuel increases transportation costs on grain from Minneapolis to New Orleans by 10 cents per ton or three-tenths of a cent per bushel, and that the administration's proposal of 15 cents per gallon alone equals a 4½-cent-per-bushel cost to the farmer. Again we would stress that you may collect more taxes from the barge carriers but it's ultimately the producer who will pay.

American agriculture values waterway transportation because this efficient water transportation in recent times has enhanced the economic development of interior regions, vastly increased exports, and increased farm incomes. However, it's important to note that at the same time riverine functions and multipurpose water programs have also benefited the public at large. These programs have provided flood control; stable municipal water supplies; low cost hydro power; recreational opportunities for boating, fishing, swimming; and the protection of game, wetlands, forests, and a host of other public benefits.

It's also important to keep in mind that the environmental concerns totally unrelated to the practical needs of navigation have greatly increased the cost of maintaining the inland river system. For example, since 1970 the environmental agencies' activities have caused the cost of maintenance dredging to increase from 46 cents per cubic yard to an estimated $9.50 per cubic yard in 1981.

In conclusion I would like to stress the following points: No. 1, the Upper Midwest economy is going to bear the heaviest impact of congressional efforts to increase waterway fuel taxes or to add license fees, segment, blockage fees, tolls, cargo capacity charges, or any form of taxes for full cost recovery of the U.S. Army Corps of Engineers operating and maintenance budget.

No. 2, it's our view that Congress should not amend the graduated scale of waterway fuel taxes found in the existing Public Law 95-502 until the section 205 National Waterway User Charges study, intended to measure the impact of waterway fuel taxes, has been completed and reported back to Congress.

No. 3, Congress should require the U.S. Army Corps of Engineers to install cost-accounting procedures for detailed cost allocation in its operations and maintenance budget for the major identified beneficiaries, such as hydropower, recreation, fish and wildlife, environmental quality, in addition to commercial navigation and flood control.

No. 4, Congress should adopt a concept that no beneficiaries should be assessed more than its fair share of the U.S. Army Corps of Engineers operations and maintenance budget.

No. 5, since the waterway taxes in any form will most heavily impact on fertilizer moving to our farms and agricultural products moving from our farms to both domestic and international markets, it would appear that this tax is an agricultural tax.

No. 6, since the administration seeks full-cost recovery of the corps' O. & M. budget, which can only be expected to continue to escalate, any reduction in the movement of agricultural products in waterborne commerce that might result in intermodal shift can only result in even higher waterway taxes to make up for that.

And No. 7, and finally: It is grossly unfair to expect the American farmer to subsidize numerous recreational or environmental projects in States bordering on the Upper Mississippi River merely because his agricultural products pass between those States in interstate or international commerce on a Federal waterway.

As a result, the Minneapolis Grain Exchange strongly opposes any form of increased waterway user fee legislation until such time as the above-noted elements have all been identified and considered. We are convinced that, without acknowledgment of these factors, inequities impacting on the exchange's membership, and on agriculture in general, would only be magnified. Thank you.

Senator **Abdnor**. Thank you. I think I'm going to have to ask you to try to do a better job of summarizing.

STATEMENT OF DON KNUTSON, MINNESOTA FARMERS UNION

Mr. **Knutson**. Mr. Chairman, my name is Don Knutson. I'm the congressional liaison for the Minnesota Farmers Union. I would like to thank Senator Durenberger for asking us to appear at this hearing today. On the issue of brevity, I'll keep my comments to about 3 minutes.

Unlike many other companies and organizations represented at this hearing today, the Minnesota Farmers Union is not directly involved in the shipping and handling of inland waterway cargo. Our appearance at this hearing, however, cannot be underestimated on those grounds because, to a great extent, it is our farmer members who have the least to gain and the most to lose through proposed legislation to increase Federal waterway user fees.

There is no doubt in the minds of members of the Minnesota Farmers Union that all of these increased transportation costs will eventually be passed on to the farmers in the form of lower commodity prices. At this point in history, farmers cannot absorb any more inequitable expenses, and farmers are not in any position to pass along increased costs.

The Minnesota Farmers Union believes the maintenance and improvement of our waterway transportation systems is just as important to our civil defense as is the maintenance and improvement of our national defense. However, there are some administration experts—David Stockman, of OMB, in particular—who argue that spending $325 million per year in 1983 on waterway subsidies is excessive.

I ask the members of the committee to ponder this question: If the citizens of this country were asked to decide whether to spend $325 million per year to maintain our entire inland waterway system or to spend $500 million to refit one outdated World War II battleship, what would they choose? Perhaps the comparison is not relevant but it does demonstrate priorities. As a priority, it is time for Congress to decide once and for all that our inland waterway system is a matter of national security and should be paid for by all.

Our regional cooperatives also have a great deal at stake when Congress acts on this issue, for whether it is fertilizer, petroleum products, or farm machinery and parts, the Mississippi is used to bring vital agricultural supplies into the Upper Midwest. Higher waterway user fees will translate into higher input costs to farmers, and if fees are increased as proposed, farmers will pay the freight both ways.

In conclusion, the Reagan administration appears to view the Mississippi as one mode of Midwest transportation, a mode of transportation with alternatives. The Minnesota Farmers Union, on the other hand, views the Mississippi River as the major lifeline for our agricultural community. We must and will resist any legislative measures to strangle this lifeline.

On behalf of our members, thank you.

Senator **Durenberger**. Just so the record is clear, neither Mr. Knutson nor the organization he represents is anti-national defense. I think that the figure of $500 million represents the political difference last year in retrofitting one battleship in Virginia where it should have been retrofitted rather than taking it up into Pennsylvania and doing it there. It was just an absolute waste of taxpayers' dollars and I'm glad I didn't support it.

Senator **Abdnor**. Thank you.

STATEMENT OF RALPH PRESCHER, MINNESOTA SOYBEAN ASSOCIATION

Mr. **Prescher**. Thank you, Senator Abdnor and Senator Durenberger. In all due respect for time, looking over the program, I see there's only two farmers that are going to speak on the subject matter that everybody is relating to; agriculture. So with that in mind I will try to summarize my main points, if I may.

I appear before you as a representative of the Transportation Committee of the American Soybean Association. My name is Ralph Prescher. I am a farmer from Delavan, Minn., where I raise soybeans, corn, and hogs. I am also president of the Minnesota Soybean Growers Association. As you know, soybeans are an important crop in Minnesota. Minnesota farmers last year produced 152 million bushels or $1.1 billion worth of soybeans.

The administration's proposed inland waterway user fee concerns us for two reasons: First, America's soybean industry has a vital interest in maintaining a viable, efficient inland waterway navigation system. Second, any increase in waterway transportation costs, which would result from user fees, is likely to have a negative impact on farm income.

Since half of America's soybean crop is consumed at home and half is sold overseas, with 50 percent moving by water at some point in the transportation chain, soybean producers are acutely aware of the need to maintain and selectively upgrade the Nation's entire waterway transportation system. As the Nation's largest cash export item last year, soybeans contributed $8.6 billion toward a positive U.S. balance of export trade.

Last year 79 percent of the total soybean exports left the United States from gulf ports; 12 percent from the east coast facilities; and 8 percent from the St. Lawrence Seaway and the Great Lakes system. Very few soybeans were exported from the west coast.

The American Soybean Association supports the concept that users of a transportation system should help pay for what they use. Growers are not opposed to shouldering their fair share of the costs of inland waterway operation, maintenance, and development as long as we pay only our proportionate share on an equitable basis. If increased user fees are applied we would urge Congress to mandate cost recovery based on benefits. Put more dramatically, soybean growers strongly urge that not just commercial but all users, including recreational and military craft, pay their commensuratory fees.

Soybean growers also feel that inland waterway benefits extend beyond navigation and include flood control, military strategic value, potential electric generating capacity, and also benefit wildlife habitat. For this reason we strongly urge Congress to fully assess all benefits accruing from the Nation's inland waterway system before implementing user fees. Currently the U.S. Army Corps of Engineers accounts for all waterway expenditures either as navigation or channel maintenance. A portion of that cost has nothing to do with the movement of commodities.

ASA fears that the brunt of inland waterway expenses will be borne by the American farmer. It is highly unlikely that inland waterway user fees will be absorbed by shippers. Instead, we fear that the increased transportation costs will be passed back to the grower in the form of reduced price per bushel of their product, or will be added on to the market price for our foreign and domestic soybean customers. Consumers may or may not be willing to absorb that increased cost depending on whether the world soybean market is a buyer's or seller's market. At the moment the world soybean market is slack and a favorable buyer's market exists. In addition, the United States has become a residual soybean supplier to the Soviet Union and others as a result of the U.S.S.R. grain embargo.

In summary, we are willing to pay our share of the cost recovery, but only our fair share. If soybean growers help pay for the smooth operation, maintenance, and development of America's inland waterway system, then we urge the Congress to establish procedures by which we, producers of raw materials who are affected, should have a greater input into the establishment of priorities for capital improvements and investments on the Nation's inland waterways.

Senator **Abdnor**. I want to assure you that we're all just as interested in trying to find out what that share is and to break it out so we are reasonable and fair in whatever we decide to do. We're struggling for information and going around the country because it is a big issue and one I don't want to jump into without knowing where we're going. There is the 205 study that does cover some things, as I understand it. It's going to be completed in October, and I'm not saying that's going to be a viable source, but it's going to be helpful and something to start with. Other information we pick up may help us reach some conclusion.

Now, we don't raise soybeans where I come from, but we do raise wheat.

STATEMENT OF RICHARD KRUSE, MINNESOTA WHEAT GROWERS

Mr. **Kruse**. I am Richard Kruse. I thank Senator Durenberger and Senator Abdnor, and I represent the poor and depressed farmers out in the country.

A while back Dave Stockman made the remark that the price of grain will have to rise between 3 and 9 cents a bushel to cover the extra tax on the seaway and river shipments. You know that the price of grain is not going to raise but the price of fertilizer and everything that's hauled back, you know for sure that it is going to rise between $1.20 and $3.60 a ton. So I guess our farmers are kind of stupid the way we mark things because we never ask the cost. We just sell it for what we can get.

A week ago I was down at lock and dam 27 and 26 and I noticed the big sign out in front of lock and dam 27 where it originally cost

$165 million. Between 1953 and 1978 the savings in flood control to fish and wildlife was $960 million.

At lock and dam 26 they haven't worked since July 8. You probably know that they have had between 16 and 18 inches in Missouri and Illinois and the water is too high. They don't have to work when the water is that high.

This is just about as short as I can make it.

Senator ABDNOR. Thank you. I'm sorry, but we appreciate what you're doing there.

Senator DURENBERGER. I'd like to make a suggestion to all of you and indirectly—I suppose—by way of a suggestion to those that were asked to appear. You weren't the only two farmers asked to appear today. I think to help us do our job better in resolving this issue, you are asked to concentrate on user fees because that's the administration's proposal on the waterways. But I think it would be helpful to those of us that have to make these decisions in a broader sense if you could expand each of your presentations—not here today—but for the record—since it's going to be kept open for a couple of weeks—to the other modes of transporation; specifically, rail and the probems of the independent trucker in this, which I think we all understand. It's getting worse and worse, even for those who survive the whole process.

We in the Upper Midwest are gradually in a situation where we are dependent on one railroad and practically one railroad only for access. When I'm out in Montana talking severance taxes they are very quick to point out the fact that the cost of transportation of coal is in excess of the actual cost of the coal, and they're only taxing 30 percent of the cost of that coal.

We, in our fetish for deregulation in this country, have really gone somewhat beyond the point of being as realistic about who bears what cost of transportation in rail compared to what we are doing here. Yet we subsidize other transportation systems and competing transportation systems greatly. We use something called the investment tax credit. But I think we all know that there are major transportation companies in this country that don't pay taxes because of the ITC. I'm not arguing the pros and cons of that. It's strictly the issue of what the public role is in financing the transporation of commodities in this country. Your problems are that too often you don't have a choice in the matter.

So to the degree that you can expand your presentations for this record to other modes of transportation and the Government versus the shipper-user role in that, I think it would be helpful to us in answering the administration's, or the Dave Stockman—as it may be called—position on imposing costs on those who use the system.

Senator ABDNOR. Any further comment on that? [No response.]

We have two major pieces of legislation before this committee that the administration is supporting strongly. One is the deep water ports, dredging down to 40 feet or more, and the inland waterway user fee. We've had a lot of testimony from around the United States and the port cities and some of them are ready to go on their own, interestingly enough. But others have no problems with dredging their own ports and maybe the maintenance costs. But this one is a completely different thing from that and it's going to be a lot tougher to come up with some answers. That is why we'll be going slow on it.

Let me just say that in testimony to this subcommittee about a month ago when Dave Stockman, our OMB Director was before us, somebody on the committee asked the question, what would happen if we didn't go along with any new revenue raising user fees like they're suggesting? I think his answer was pretty much like this: I cannot see how it would be possible to fund any new construction, any significant new projects over the next several years. The money wouldn't be there. What's that do for you? I mean, when you get that kind of a comment? I guess it is a struggle. Right now we're cutting back on a lot of projects. I think it's a pretty fair assumption that we're going to come up with some kind of user fees before we get done, but we certainly want them to be equitable. But you can see that comment. I don't know how it strikes you, but would you care to comment on that? We either put up or we can't have any new projects? Are you gentlemen opposed to the idea of any kind of additional user fees? I suppose your immediate answer would be "yes." Would it be more acceptable if we could find a more equitable formula like you said? Fish and wildlife; flood control? That's the thing we're trying to come to an undrstanding on.

Mr. Kruse. Speaking from a farmer's standpoint, we hate to absorb any more costs than necessary to upgrade the lock and dam system on the Mississippi which is essential to the economy of the Midwest. This lock 26 is critical to the whole system, but those are critical needs. If we have to absorb some more cost then I guess—well, if we can get results on the other end for getting the lockage improved on the system——

Senator Abdnor. Let me assure you we're going to do everything we can to give a lot of thought and study before we jump into these things. We'll get all the data and studies we can before we do anything.

Mr. Slettom. I don't see how the United States can afford not to improve its total transportation system for agriculture. I'm referring to all modes of transportation. We've got tremendous production here and our world market now is very important to the balance of trade payments and the economy as a whole. I think this has to be examined in its entire scope in coming to any conclusion and fixing our priorities where they belong.

Senator Abdnor. That's true. We certainly know that, but we talk about railroads. They tried to cut back Conrail, and I think eventually it will be. If they had their way about it, Amtrak would probably have been cut farther than it was. So it is not just something slanted towards barges and water industries, but everyone. The problem really is that it's been great up until now, but with the trillion dollars in debt and inflation and other things, I guess we're looking at how.

Mr. Kruse. Would you see the user fee as just being used for maintenance of the waterways like the highway fund is, or would it be thrown into the general jackpot?

Senator Abdnor. The highway users fee is for building the roads as well. You take all the interstates being built coming out of the user's fee tax. Our biggest problem right now is trying to find some money for highway maintenance. All these interstates that are deteriorating need to be rebuilt. We need to continue on with the interstate along with the bridges. So this thing is hitting us all over. Right now the proposal is for construction and maintenance, but this is something we're considering and I don't know what we'll end up with.

Mr. **Kruse**. I believe that we absolutely have to have lock and dam 26, but I think on the same hand we should try and pay as little as we can for our share.

Senator **Abdnor**. I guess that says it pretty well.

Our next panel is Ford Robbins, Joseph Feeney, and Gus Kernt. I don't know where this time goes so fast.

STATEMENT OF FORD ROBBINS, SIERRA CLUB

Mr. **Robbins**. Senator Abdnor, Senator Durenberger, it's a pleasure to be here. I'm Ford Robbins, State chairperson of the North Star Chapter of the Sierra Club. I'm speaking on behalf of the over 210,000 members of the National Sierra Club. On my left is Mr. Gus Kernt, executive director of River Country Voices. On his left is Mr. Joseph Feeney, general counsel for the Western Railroad Association.

Before I begin, we recognized that the time constraints would be tight. As a result, we didn't fill out our panel with some other people that did wish to speak. We recognized that there might not be an opportunity for public submission later, so I've been asked by one of the members of the audience to ask if her statement in written form could be introduced into the record.

Senator **Abdnor**. Let the record show that we're going to keep the record open for 2 more weeks for anyone that would like to submit additional material.

Mr. **Robbins**. Thank you. I have introduced, Senator, a lengthy written statement, and I will be very brief and summarize that statement for you today.

Simply, the Sierra Club believes that there is no conceivable public policy argument that can uphold the continued awarding of waterway transportation projects. They are a unique status among government and social endeavors.

Indeed, we believe that many waterway projects result in a net economic loss for the Nation as a whole. As the subcommittee well knows, water projects have been subjected to endless claims and counterclaims regarding their economic soundness. We think it is time that the proponents of these projects put their money where their mouth is.

Not the least important reason for adopting water project cost recovery measures is to test the various economic arguments advanced by project proponents and opponents. Project beneficiaries—we call this a user fee—let's be realistic and call it a project beneficiary fee—should be willing to bear the cost of projects that are, in fact, sound. Those projects that cannot secure the financial support of the beneficiaries can be assumed to be equally uneconomic for the taxpayers.

In the field of water transportation the Sierra Club has long advocated waterway user charges. There are two basic reasons for our position. First, we believe that the nearly free ride being enjoyed by the waterway industry artificially attracts commerce to river systems with multiple values and that the consequence is environmental deterioration that does not even have a valid economic justification.

Second, we believe that many proposed new waterways would fail the economic test mentioned above. They wouldn't make it in the marketplace. For that reason the result would be a major decrease in investment in the new projects or segments. This decrease in investment would give a reprieve to important river biological and recreational systems that would otherwise be doomed.

I've set forth in my prepared remarks a description of the elements that the club believes would provide the properly constructed beneficiary charge system. I've also discussed the specific provisions of the legislation that this community is considering.

In view of the time we have, I would respectfully refer Senator Abdnor and Senator Durenberger to the written material. I do wish to thank you for the opportunity to appear before you this afternoon. It's been an honor for me to do so.

At this time I'd like to ask Mr. Joseph Feeney to make his comments.

STATEMENT OF JOSEPH FEENEY

Mr. **Feeney**. Mr. Chairman, Senator Durenberger; Congressman Oberstar made reference to the National Transportation Policy Study Commission Report, and we certainly urge you to incorporate that into the documents that you review in considering the issues that are before you.

The Study Commission made a specific point that the market technique should be used in evaluating waterway projects. It then went on to say: "Free markets operate on the principle that those who benefit must pay the cost." That's at page 249 of the report.

The opposition to waterway user charge legislation raises an important question which your subcommittee must address: If the Corps of Engineers claims that the expenditure of hundreds of millions of dollars of taxpayers' dollars for a waterway project is justified by the benefits which exceed those expenditures, then how can the barge industry come before you and at the same time claim that a user charge will wipe out these benefits and result in the traffic moving by rail or some other means? The two claims are inconsistent.

Concern has been expressed here today about the effect of waterway user charges on the marketing of grain by farmers in Minnesota, South Dakota, and Iowa. May I respectfully suggest that while gulf ports will always export grain, substantial future marketing opportunities lie with the railroads moving grain to the west coast ports, and that this provides a more efficient use of resources. The railroads have recently published unit train rates from Minnesota and South Dakota to Pacific Northwest ports.

To give you an idea of the efficiency there—going from Sioux Falls, S. Dak., to Japan via Seattle, it's 6,708 miles, but the barge distance via New Orleans, you're involved in 12,438 miles. Now, with interest rates where they are and our concern about funding these exports, the time required for movement of grain to Japan via Seattle is 29.8 days, while through the gulf using barges is a minimum of 59 days.

Comparing transportation charges from Sioux Falls, S. Dak., to Japan, shows the effect of the additional mileage through the gulf ports.

Without going into all the arithmetic, a total charge of $1.07 per bushel via Seattle, and it's a $1.13-per-bushel charge using rail barge via New Orleans, and that's a conservative figure that's being used, which gives you a 6-cent advantage in moving corn via Seattle to Japan.

Now, having in mind that at least 20 percent of our export corn and soybeans move to Japan and the Pacific rim countries, it is apparent that the railraods provide the farmers in South Dakota and Minnesota with a very important means of marketing their goods. The proof of the fact is that export corn shipments through west coast ports have increased from less than 1 percent of the total in 1975 to over 15 percent of the total exports in 1980.

Now, the question of immediate concern—as we gather here today—is the effect of any waterway user charge on the price paid the farmer for his grain. A recent paper by Dr. Lowell Hill of the University of Illinois, which he delivered at the American Agriculture Economic Association, concludes that the price paid the farmer is not closely related to barge costs. He based this on a comparison of grain prices at New Orleans with barge fuel costs.

I talked with Dr. Hill at length, and he is pursuing this study. Again, I would sugest that this is one of the documents which should be considered by your subcommittee. We'll see that it is furnished to your subcommittee when Dr. Hill completes the study.

Senator **Abdnor**. How long will that be?

Mr. **Feeney**. He is not sure. He was gathering more statistics and refining the analysis that he made in the course of this paper. He only delivered the paper about 2 weeks ago.

Senator **Abdnor**. Do you think it will be in the next month or two?

Mr. **Feeney**. Yes. I will ask Dr. Hill's concurrence in furnishing the committee with a copy of the paper that he gave to me.

Senator **Abdnor**. Fine. Thank you.

Mr. **Feeney**. Now, this proposition also raises the question that needs to be answered before any conclusions are drawn that a waterway user charge would be passed on to the farmer. In 1981, according to the "Waterway Trade" publicaton, barge rates have been falling during the same period that the Government began collecting the 4-cent user fee on fuel. Now, this experience indicates that in the real world the factor that controls barge rates is demand and that is what determines what the merchandiser will pay for barge service because he's the one that pays the barge bill. Barge billing rates fluctuate from 90 percent of tariff to as much as 300 percent in the past. These changes far exceed any variations in operating costs which again demonstrates that it is demand that controls barge prices and barge charges.

The farmers have a stake in the future of rail service and I welcome the opportunity that you extended to us to focus on the role of the railroads in this too. Not only does the rail system provide a standby means of moving grain when the northern waterways are frozen or barge operations are disrupted by floods in the springtime or low water in the fall, but the rail system offers the farmers an opportunity of marketing their grain through port elevators other than the 11 on the lower Mississippi. A local elevator in southern Minnesota or South Dakota can sell corn and soybeans at any of the gulf port elevators from Corpus Christi on the west to Mobile on the east. This gives them a choice, and it's an important choice. Farmers can also market at another railroad through any of the west coast ports from Puget Sound to California, and lake ports using rail.

The collection of user charges does not eliminate the need for careful economic analysis before the decision to build the project is made. If the total resource cost by water is greater than moving the goods by rail, then there is no net benefit to the public from building the project, and like the Tennessee Tombigbee, it shouldn't be built. If it is public policy to build waterways for the benefit of a limited number of farmers or other shippers, even though the net benefits are less than the cost, then pay the subsidy directly. Do not spend money for a water project and subject the public funds to the deductions imposed by the bureaucracies in Washington and the construction industry. The answer to the question, "Can the goods be moved with less resource cost?" goes directly to the question I raised here initially—if the barge industry claims that the covering of cost will destroy the waterway system, then this is prime evidence that the corps' analysis has been wrong and that the benefits of the system did not exceed the cost in the first place.

I might also point out that the navigation system on the upper Mississippi River was justified 100 percent on the basis of navigation benefits, and history demonstrates that. Cooperatives and other farm organizations away from the river have supported user charges for barges in the past and they did so at the hearings before on the Domenici bill. They recognized the need for a healthy system and they recognized that the farmers near the river benefit at the expense of the taxpayers and the farmers away from the river who must compete with the farmers near the river in the sale of their grain.

Thank you very much.

Senator **Abdnor**. Thank you, Mr. Feeney.

STATEMENT OF GUS KERNT, RIVER COUNTRY VOICES

Mr. **Kernt**. Senator Abdnor, Senator Durenberer: My name is Gus Kernt. I'm the executive director of the River Country Voices.

This project is jointly sponsored by the Sierra Club and the Environmental Policy Center in coordination with the Basin Commission to facilitate input. Part of this effort involved the development and administration of a questionnaire to well over 400 environmental, conservation, and recreational groups. We got back a very good response rate from that, and I'm submitting for the record a consensus of what we pulled out from the polling of these different interest groups that are primarily focused on environmental and recreational values from the Mississippi River system. That will be made a part of the record.

On the issue of user fees, there will be widespread support for the concept. One of the primary reasons for the support is that the user fee will go a long way toward a more efficient use of the system.

This is really a point that hasn't come out explicitly today—but with the new Reagan approach to antiregulation, one can go an awful long distance in mitigating environmental damage if we have a user fee schedule that is designed so that we don't have clamoring for excess barge fleeting on the Mississippi or excell toll passage. All these things in incremental proportions add up to significant environmental degredation, and it would be a significant change in the policy in Washington to start using these economic forces to mitigate environmental damage. Of course, the substantive environmental regulations should not be removed, but I think you'd find that the general need for substantive regulations would be less because the opportunities for environmental abuse are not going to be as large.

I guess the thing I'd like to leave with you is this economic relationship between the free market and the environmental preservation.

Senator ABDNOR. Thank you, Mr. Kernt. Just one question. Do you think, gentlemen, it's fair for barge users to pay for the other benefits that go with some of these other programs; flood control, recreation, wildlife benefits? Do you think all of it should be paid by the barge user fees? Does anybody care to answer that? You're just against any type of barge movement on the rivers?

Mr. ROBBINS. No, sir. Our position is very simply that the free market ought to be allowed to operate and the Government ought to get out of the subsidy business in waterways. If the free market were to operate, two things would happen. The projects that were economically sound would be built; those that were not would not be built.

Secondly, the environmental degredation would decrease if there was full recognition of environmental values in the economic equation. I'm not against barge traffic at all.

Senator ABDNOR. How about paying for the entire program?

Mr. ROBBINS. In terms of the allocation of cost between one group or the other, obviously there has to be very careful study, but there is no real problem with allocation between various groups if we recognize one thing. The problem that we're in today was created by the creation of a water system that was justified strictly on a commercial basis. If improvements, reconstruction, and new construction include the recognition of other values beyond just the commercial navigation, then those costs could be properly allocated to other groups. You will find in my prepared remarks that I addressed the question about recreational users having to bear user charges, and the position is the same thing. Only if a conscious decision is made to make an improvement for recreational purposes should the recreational user be required to bear the cost. That hasn't happened to date. The decision has always been to create the project for commercial purposes. If we start broadening our perspectives, I think that everyone who bears the benefits should bear the expense.

Senator Abdnor. You say there's been nothing for recreation so far?

Mr. Robbins. Up to this point there has been some improvement put in for recreation.

Senator Abdnor. I know of places where there are all kinds of recreation that came about as a result of it. I guess sometimes recreation shares as much in it as anybody when they're through.

We have not justified any project that I'm aware of on the Mississippi River on the basis of doing it strictly for recreation. We've had hearings where they are pleased with the recreation and they want the Government to take care of it for them and continue it.

Mr. Robbins. If we can spread out the costs, I don't have any quarrel with the recreational community bearing that.

Mr. Feeney. Most of these projects would never be built except for the navigation interest clamoring for them, as they did for lock and dam 26.

Senator Durenberger. I just want to follow up on that same thing. Mr. Robbins, I was reading your statement where: "100 percent of all waterway operation and maintain costs would be recovered from users. It must be understood that operation and maintenance costs include all expenditures that are made necessary by the waterway improvement, whether or not those costs lead to an additional benefit to the commercial waterway improvement itself. These costs"—here's the important part that causes both of us to ask these kinds of questions—"These costs must be considered part of the navigation project and must be recovered through O. & M. user charges, for they would not have been incurred were it not for the conversion of the rivers from a natural system to a commercial waterway."

Well, it seems to me—and I don't want to sound like Jim Watt here—but at first blush that says "Don't mess with Mother Nature," and the guy that messes the most—and in this case it sounds like commercial transportation—ought to end up bearing a lot of other directly and indirectly related costs such as fish and wildlife preservation and improved dredging. But one of the big things with a body of water has got to be flood control. With the Mississippi River there's got to be flood control. You really can't say that those dams weren't put in there to facilitate the movement of barge traffic.

You heard the Rochester presentation and you heard the Red River presentation. Man has come along, or at least the European man that came to this country, has come along and diverted an awful lot of water resources from their natural courses into some of these main streams like the Mississippi. I think that was the developers and a whole lot of people, not just the farmers and the barge people that needed it, and they sort of converted this river into something else and caused somebody else, the Government, to have to come along with structures and dredging and so forth—that do other purposes—other than just facilitating commercial transportation. I think that's where we have to try to figure out this program.

Senator **Abdnor**. I'll give you an example. The Missouri River basin, through the city, has navigation through the city now. That was an afterthought of it, I guess.

Mr. **Robbins**. Let me turn this around a bit and get back to the point I'm trying to make and not maybe doing it very artfully. If the project were analyzed on a free market cost basis, the cost spread among all the groups that would benefit, and all the groups that benefit have an equal opportunity to present their views, then an intelligent decision would be made whether to undertake the project or not. As it is now, we justify these projects for a number of reasons. In the past it's been 100-percent commercial with an after effect of recreation and so forth. But if we would analyze it completely and allow all groups to have their say——

Senator **Abdnor**. This is important to me too. Now, most of the Missouri River project was flood control all the way; just about every bit of it. How do we recover? My State lost 500,000 acres. How do we recover for all these great benefits? Flood control is the biggest item. Do we put a tax on everybody along the river or charge all the barges going down to Sioux City and Omaha to pay for it? That's why it's got to be fairly done, and that's why we're trying to hold these hearings to find an equitable formula, but to say that all these projects principally were put in in the first place just for navigation——

Mr. **Feeney**. I was referring specifically to the series of locks and dams on the Mississippi River. Those are all 100 percent, and the Illinois waterway. There's also a body of evidence that indicates that maybe they contribute to the flood problem rather than helping it.

Senator **Abdnor**. I don't want to take any more time. We'd better get moving. The record is open. If you care to have those people submit statements for the record we'd like to have them. Would Mr. Helberg, Senator Ulland, and Edward Ruisi come forward? I believe we've also added Mr. Fish. How about you, Senator? Will you start it off?

STATEMENT OF HON. JAMES ULLAND, SENATOR, MINNESOTA STATE SENATE

Senator **Ulland**. I, of course, represent Duluth, which is one of the major ports in the United States. Second, I'm the Chairman of the Minnesota Great Lakes Commission. So I have some responsibility for Minnesota's position over the entire Great Lakes.

What I looked at when I saw the cost recovery proposals, I took the Great Lakes budget, which is $73 million. If we were to relate that to a full cost recovery effort, that would increase tolls, which are now approximately $9 million—would increase tolls 800 percent. I'm sure you heard the outcry on the proposal to increase tolls 30 percent, but full cost recovery would increase tolls 800 percent.

Now, in my judgment what that would do is virtually destroy the seaway, so the investment that the Federal Government has made in the seaway would virtually be lost. I hope that as the Senate goes forward in looking at this concept that it will consider the other ramifications of lost previous investments made in the seaway.

There are things that you can do to help the seaway to make it more competitive and more able to pay some of those costs if the Congress decides some should be paid. One is that the seaway is the only waterway that is currently paying off the construction debt. All the other waterways, with which I'm familiar and that have been constructed, have been paid by the Federal Government. I agree that that was the initial agreement. The seaway has wound up paying off the principal and interest, and I understand now it has been relieved of the interest cost, so it has that burden.

So if we throw full cost recovery and the current effort to repay all the seaway interest and investment cost, we have a system which—I think—is doubtful that it can continue to be of service to the farmers in the Upper Midwest.

Other problems where you could be helpful—the length of time for getting dredging approved is unusually long. It takes decades to get a project approved. If you're got a decade of inflation facing you, the resulting cost is just that much greater.

An additional area is trying to get utilization. I was in Montreal at the close of the seaway 2 years ago. On December 15 there is no ice in the seaway and yet they were closing it and denying the use of that investment that was in place.

Senator ABDNOR. Because normally it is frozen at that time of year?

Senator ULLAND. New York doesn't like the seaway to be open any longer than they can argue against it.

Second, the Coast Guard or the Corps of Engineers have been a little more guarded in seaway extension than the studies that they have recently completed would indicate. So we could have the seaway season extension which would provide greater tolls, more opportunities for paying some of the costs, greater utilization, and lower shipping prices for farmers.

Finally, we're concerned, on the Great Lakes Commission that if the user fee cost recovery system is started, how is it going to be implemented. I don't think the Port of Duluth is going to be able to chase down foreign vessels to be able to get payments as easily as the Federal Government. We find it particularly difficult in some cases currently.

Senator ABDNOR. Thank you. We appreciate your coming down from Duluth.

STATEMENT OF DAVIS HELBERG, SEAWAY PORT AUTHORITY OF DULUTH

Mr. HELBERG. I'm Davis Helberg, executive director of the Seaway Port Authority of Duluth, Minn.

I would like to make one correction. In that statement I indicated—we've had—to some degree—a change in the cast of characters, if you will. Senator Ulland is here; Edward Ruisi, general cargo manager for Guthrie & Hubner in Duluth; and James Fish, executive director of the Great Lakes Commission, is also on the panel.

Senator ABDNOR. Fine.

Mr. HELBERG. I'll touch on some of the high points of what we wanted to discuss with you today. We're primarily directing our comments at S. 809, the one that would affect the Great Lakes directly. Senator Ulland made mention of the seaway tolls. They have been with us since 1959, as Congressman Oberstar also indicated earlier. The onerous user fee; a user fee we've been saddled with since 1959. It stayed unchanged from 1959 to 1977 and then underwent a virtual 100-percent increase in a 3-year period from 1978, 1979, and 1980. Now we've also seen a decline in traffic and I'm saying that there are various other factors contributing. But as these tolls have increased we've seen a decline in traffic on the Great Lakes.

I guess partly what we're concerned about, and I say this with respect—please take it in the spirit in which it's given—but we see the Government getting into additional user fees in the Great Lakes, and it's almost the proverbial camel getting his nose in the tent. If we have those tolls increased by additional user fees heaped on top of them, I suggest that we would have come to a pretty pass, indeed. I bring that up because I can't, of course, have any way of knowing what was in the minds and hearts of the people of the administration when this bill was first hammered together. But it would appear to us that somebody overlooked the fact that the Great Lakes really existed.

We have some very special features in the Great Lakes that don't affect the other coastal ranges, particularly the tiderwaters. We have that tollway system. We share an international boundary with Canada. It sort of gets to that situation that has been alluded to eariler today about the different States and how user fees would be applied on the Mississippi. Well, here we have an entire different nation to deal with.

There is no other deep-draft waterway in the United States that moves as much domestic cargo as do the Great Lakes; the ore, taconite, the grain, the coal. The heavy movements of domestic cargos that we enjoy and have enjoyed for many, many years on the Great Lakes

Consider a United States Steel ship running 40 trips a year, shallowly built in some ways similar to the occasional tramp freighter coming in for grain and making one trip in a season. These are problems that we certainly hope the committee and staff people will look at.

Hundreds of Canadian ships carrying millions of tons of Canadian cargo ply the U.S. sections of the Great Lakes every year. As an example, from the Port of Thunder Bay there was 14 million tons moved to the St. Lawrence River ports also in Canada. Those Canadian lakers are not calling on American ports, but they are using sections of the U.S. waterways. I think that again points out the unique nature of the Great Lakes and shipping.

Then there is one other comment. I guess we all want to look at ourselves as being unique, but there is another factor on the Great Lakes that is different from the coastal ranges and that is that most of the port authorities were established after the 1954 legislation that led the United States and Canada to construct the seaway. That means that essentially we do not have the luxury of owning waterfront land to the extent of—say—to the extent of the Port of New York, the Port of Mobile, or the Port of Houston, or as many of the tidewater ports do. There have been two efforts made in the Great Lakes, one by a city and one by a State, to apply user fees for purposes of port authority operations in given areas of the

Great Lakes. Both of those are now embroiled in heavy litigation and we don't know if they're going to be able to correct those fees or not. I make reference to that because of the reference in the bill to a no Federal-public entity collecting these fees.

Mr. Stockman was quoted and said in his principal testimony something to the effect that non-Federal administration of user charges would let the same people that already easily and flexibly collect fees to cover the land-side, dredge, disposal, and connecting channel costs to continue in charge of their own houses.

We urge that there is nothing "easily and flexibly" collected by non-Federal agencies which have never before collected a red cent in fees from port users. I don't mean to be picking on Mr. Stockman, but that is a fact.

To summarize, if a user fee system is inescapable then we would ask that it be uniform in its application, at least for ports with a depth of 45 feet or less, so that it does not disrupt or distort the present flow of cargo.

It should be administered by the Federal Government, including the collection of user fees.

We would also say that it should be designed so that all previous construction costs are grandfathered into the program.

Senator **DURENBERGER**. would you explain that one?

Mr. **HELBERG**. I was getting at the St. Lawrence Seaway construction debt, that any existing construction debt would already be forgiven.

Senator **DURENBERGER**. OK.

Senator **ABDNOR**. Is anyone who uses the Great Lakes, asking for deep water ports?

Mr. **HELBERG**. Not to the extent of the Hampton Roads-Mobile where they're looking for the super deep ports. We are restricted to a 27-foot waterway.

Senator **ABDNOR**. Twenty-seven feet, is it?

Mr. **HELBERG**. I have a bad feeling that if it is ever deepened I'll be smelling roses from the roots because it's going to be a major project involving the United States and Canada, Montreal, and going all the way through to Duluth-Superior.

Senator **ABDNOR**. But there's no clamor for it either?

Mr. **HELBERG**. Yes. There have been a lot of people who definitely would like to see it, but the cost would be enormous. I think there's been an early feasibility study done but it has not come to any definitive conclusion.

STATEMENT OF EDWARD RUISI, DULUTH-SUPERIOR MARINE ASSOCIATION

Mr. **RUISI**. Senator Abdnor, Senator Durenberger. My name is Edward Ruisi. I would like to add further to what Mr. Helberg said on cost. We also talk about the seaway tolls that are imposed on the vessels; however, what we overlook is that the vessels coming into Duluth from Europe have an extra 14-day sailing time; 7 days in, 7 days out. This constitutes a big consumption of fuel, which is expensive. This is also passed on to the shipper in the freight rates.

The next item a ship has to absorb is the mileage. They take a pilot all the way from Canada and back out again. This is another big expense which is reflected in the freight rates.

Now, when the ship is in Duluth we can only load to 26 feet because we are restricted by the seaway draft. Consequently, the ship goes out of Duluth one-third filled. It must top off in Canada which imposes more cost on the ship. This again is reflected in the freight rates.

Now, along comes this user fee which is going to be added on here. I think it's going to make us—we won't be able to compete any more with coastal ports. One of the fears I have is that the shippers will be charged a user fee and the steamship line will be charged a user fee and the shipper again is paying double, as reflected in the shipping cost number two.

Mr. **Helberg.** Consider a ship carrying grain from Duluth to Buffalo. Conceivably the shipper could be potentially paying a user fee in Duluth, then traverse the St. Mary River, the locks. He could be nicked there again and then at the St. Claire and Detroit River, which both require dredging. Ultimately he gets to Buffalo where he could be hammered one more time. It gets to be a more cumbersome situation than the tidewater ports face.

STATEMENT OF JAMES FISH, GREAT LAKES COMMISSION

Mr. **Fish.** Mr. Chairman, I did submit a written statement for the record. I'd like to make a couple of additional comments, if I might.

First of all, my comments in the prepared statement focus on the Great Lakes economy, some of the unique features of it, and particularly the emerging coal movement, and then some problems that we hope you consider as you look at the user charge.

Senator **Abdnor.** Is there a lot of coal movement?

Mr. **Fish.** It is a growing movement. I would point out something that—I guess—is one of the best kept secrets around; that is, for the years 1963 through 1973, the Port of Toledo, Ohio, handled more coal than any other port in this Nation. It was serving the Great Lakes and exporting to Canada.

At this point coal is beginning to move in export from Lake Erie ports out to the St. Lawrence Seaway to Northern Europe. Estimates for this year run a small amount, approximately 2 million tons. However, combined with the Canadian exports, which also generate trade balance dollars, we will be approximately 22 to 23 million tons, which is 20 percent of the annual export of the United States in coal.

I would also point out that on the St. Lawrence Seaway, through a transloading system using Great Lake's bulk handling technology, we are loading from Great Lakes ships 150,000-ton colliers in 50 feet on the St. Lawrence Seaway at no additional charging cost to the United States. That is the natural 50-foot channel.

I would like to compliment you, Senator, on your initiative and the success you've had to date, and we look forward to newer efforts in the water planning area mentioned earlier by some people. I think that is a meaningful step toward not only coordination of the Federal programs at that level, but also ultimately toward moving projects ahead faster with the support to the State programs and the better involvement that can be generated by States in the project planning which—I think—is critical; States and local communities in that project planning.

Back to the user fee, Mr. Chairman, I think something ought to be noted in terms of the impact. We heard from an earlier witness today that rates were going down on the barges when the fuel tax was being implemented. I think that's a bit of a short time frame to look at. The marketing people at Michigan State University informed me last week that their studies have shown that rate changes in the transportation area take approximately 5 years in order for the full effect to be felt. This is because of the existing contractual agreements, the intrastructural changes. The physical changing from rail to barge. They have to build boxcars and automotive power, and sometimes they have to upgrade roadbeds. It takes time for those impacts to begin to show up.

I commend you on the thorough consideration you're giving, because with a 5-year outtime on impacts for this, we don't want to have to go through this again in 5 years and have to create a promise that we might have created. So I really commend the kind of time that you're spending on it.

One of the questions that I have is: What kinds of impacts will there be on the industries who have been dependent on this water transportation? Maybe they've been made competitive because of it, but they now have a sunken investment which the country might lose. I don't know whether it will or not, but I think it is something we might look at. How do we get into this? Do we, in fact, leave an investment in one place to rot and put up a whole new one in another area? I don't know what the answer to that is, but I think it's a serious consideration because we might be losing tax revenue. We're collecting it from the waterway users but losing it because another guy might have gone bankrupt. I'm not sure how that one filters out.

Mr. Chairman, those are some observations.

Senator **Abdnor**. We appreciate those thoughts. All of them are very important in our consideration of this bill.

Senator **Durenberger**. Just a comment as a result of 3½ hours of listening to a critique of Dave Stockman's simplicity. It comes home to you as we shift waterways from the river where we debated benefits against the application of cost, and we come to the Great Lakes and deal, well, largely with the economy. Probably when you look at the Duluth port and its function and who is going to make the investment—not only in the port but in the seaways—and you look over a long period of this Nation's history, you find one of the difficulties in using user fees straight out for both O and M—because clearly there is a time, and now is a good time with taconite—to say that there is only so much demand for domestic taconite because of the world price for that taconite, and to the degree that you burden us with substantial transportation costs you reduce the demand for domestic ores.

Right now you have the problems of grain, and there Duluth is impacted by politics. What happened with one embargo, one political decision to a world market where foreign markets are purchasing their grain, impacts on Duluth or impacts on other ports that provide access to those world markets.

Fortunately, you've got an energy crisis and you've got a country that says "We will not be totally dependent on imported oil because we sit on all this coal." So Detroit-Edison, or whoever is willing to pay the transportation cost to get the coal out of the Western States to Duluth. Next will be copper and nickel. The AMEX decisions on that. It comes and goes. But a seaway can't come and go, and a port facility can't come and go. It's either there or it isn't there because it takes too long to build up all of the intrastructures.

I'm not asking a question because I assume you people agree with me. I think it points up the difficulty of policymakers in trying to address how best to assess the cost against the alleged benefits, and you just can't do it in any kind of a simplistic vacuum, at least I haven't heard today the solution to this problem, and obviously all of us are searching for it.

Mr. **Helberg**. Bless you, Senator, for making those comments because it certainly is a very, very real concern to us, and just throwing out vast statistics. Consider the potential movement or the shift in the movement of iron ore. Consider that 30 to 35 percent of the iron ore used in this Nation by the steel mills is imported. Now, if we become less cost competitive on the Great Lakes it will open the door to so much more potential imported iron ore.

The other comment is this: We talked about ports and facilities in construction. Last winter in a 6-month period—and certainly we're not in the best of times economically as a nation—there were the announcements of new or intended—new development or intended new construction in just our small community of Duluth-Superior totaling nearly $100 million. That's all good-faith investment, all on the waterfront, all involved with the maritime business. As Jim indicated earlier, we could see a real boomerang effect with this thing unless it's done very, very carefully.

Senator **Abdnor**. With that I'm going to have to bring this panel to a close. We've got two other gentlemen to hear from, Mr. Newstrand and Irv Timm. Sorry we kept everybody waiting so long.

STATEMENT OF WILLIAM NEWSTRAND, MINNESOTA DEPARTMENT OF TRANSPORTATION

Mr. **Newstrand**. Thank you for the opportunity to present some of our findings to your committee.

My name is Bill Newstrand. I'm the manager of ports, waterways, and pipeline planning for the Minnesota Department of Transportation.

When the Federal 205 study was reduced in scope, we in Minnesota felt that the study would not adequately address the problems unique to areas at the head of the navigation system. We undertook our own study to monitor the Federal effort.

Our concerns have not been reduced since then because we are still at the heads of two systems which are subject to proposals of additional taxes.

By the way, I have a full written statement but I'm going to truncate it very dramatically in the interest of time. Based on existing trends in commodity movement growth, the Upper Midwest farmers will have to pay yearly an additional $9.3 million in transportation expenses to move their products to export terminals at a 10-cent-per-gallon fuel tax. This represents approximately a 10-percent increase in their total transportation process at some 3 cents a bushel. However, at a level equivalent to 70 cents per gallon the cost increase is nearly $65 million. An individual farmer in southwest Minnesota could face an increase in annual transportation costs of some $6,000 or over 48 percent more than his existing cost. This is based on the 70-cent-per-gallon fuel tax which represents a level of charge needed to recover approximately 100 percent of total Corps of Engineers' operations of maintenance costs for the Upper Mississippi River system. It also represents a transportation cost increase for that farm of over 20 cents a bushel. That is an additional 20 cents to move a $3 bushel of corn to the final market. If the cost recovery efforts are designed to recover O. & M. expenses by specific river segments, then the charges could reach over $1 per gallon or over 29 cents a bushel.

Certain kinds of user charges, such as high lockage fees or restricted segment tolls, could cause a severe hardship for the State's economy when compared to other agricultural production areas. For example, if grain moving from the Twin Cities must pay all of the high operation and maintenance costs for the upper rivers, it is at a price-profit disadvantage with grain moving from downstream terminals, which also benefit from the existence of those upriver maintenance activities.

We anticipate a combined charge of fuel taxes, lockage fees, and segment tolls is likely for a number of reasons, such as vessel operational differences and the river system structure itself. Impacts of each type of charge vary by commodity and river reach. For example, a charge limited to fuel taxes or one of combined fuel taxes and lockage fees has less impact on grain tows than does one which includes segment tolls. This is because of the high efficiencies of 15-barge tows with medium-sized towboats.

There is a need to evaluate the benefits for the downstream and the upstream areas, from the upper river pooled segments. This provides a controlled water supply and sound flood control system for the downstream areas and many benefits for nonconsumptive uses, such as fish and wildlife and recreational boating.

In fact, recreational boating represents 50 percent of the lockage operations in the St. Paul district of the Corps of Engineers. That number holds at 50, sometimes it goes over it.

An additional problem in cost allocation, peculiar to the State of Minnesota, is the cost of responding to environmental regulations. For example, as is demonstrated on pages 30 and 31 of our report, the cost of dredging a yard of material in the St. Paul district of the corps has risen since 1974 at a rate of 500 percent over that of the national inflationary trend. A major share of this increase can be attributed to compliance to the present environmental regulations. In the St. Paul district in 1980 it cost over $8 to dredge 1 yard of material. In the Rock Island district it cost about $2.

Senator ABDNOR. Are you going to give us that report?

Mr. NEWSTRAND. You have it. You have the executive summary there, Senator. There's also a main body report.

Senator ABDNOR. Do we have that?

Mr. NEWSTRAND. I will give you 25 of each. You have one up there somewhere.

We in the State agencies initiating this study, the Department of Agriculture and Transportation, Economic Development, and the

Water Planning Board and State planning agency feel that all of these concerns must be taken into consideration in any user charge evaluation, and that very specifically any new or increased tax should be instituted gradually rather than all at once. Thank you.

STATEMENT OF ERV TIMM, UPPER MISSISSIPPI WATERWAYS ASSOCIATION

Mr. TIMM. Senator Abdnor, Senator Durenberger. My name is Erv Timm. I'm the executive vice president of the Upper Mississippi Waterways Association.

The game plan that we have here is that I have a prepared statement with documents that I intend to submit for the record. I intend only to highlight it.

There's been a lot of testimony today and we thought it might be appropriate to devote some time to answering questions that you might have.

I basically have brought a panel of experts, people with experience in the movement of agricultural products in waterborne commerce. We are going to play "stump them if you can."

I'd like to introduce them at this time. To my immediate left is Norton Quarve, regional transportation manager of Continental Grain Co., and president of our organization. Next to him is Mr. John W. Lambert, chairman of the board of Twin City Barge, Inc. Next to him is Gerald W. Brown, sales manager of Cargo Carriers, Inc. They've asked that I sort of set the stage by highlighting my prepared testimony. I'll try to do that as quickly as I can.

A bit about our association. The association was incorporated in 1932. It's not a newcomer. It is dedicated to the furtherance of navigation and sound water resource management on the Upper Mississippi River and tributaries. Among our membership are the large agricultural and energy-oriented firms, many who have subsidiary or affiliated barge and towing companies which they utilize to move coal, fertilizer, grain, salt, and petroleum products on the river.

Our members use all modes of transportation including rail, motor carrier, water, and pipeline. In fact, many of them you would classify as large rail and motor carrier shippers as well. However, it would be erroneous to conclude that rate differential between rail and water is the determining factor in the volume of traffic they ship on the river. It is but one of the factors. Our area is 400 miles off the east-west flow of commerce, and the Upper Mississippi navigation channel has been a major factor in maintaining the competitiveness of our agricultural products for many, many years.

Many have already testified as to the impact of waterway user charges on the movement of agricultural products, including many of our members. In order not to duplicate that, the main thrust of may comments will be to cover the adverse impacts, an area which I don't think you've heard about today. Adverse impacts that are created for commercial navigation.

I guess you heard from enough people today to know that the greatest impact will be felt on the Upper Midwest economy; especially on the farm. For that reason we are deeply appreciative that you've recognized this and asked for a hearing here in St. Paul.

Earlier we heard about the proposed tax on diesel fuel by the administration that would generate $105 million dollars on revenue. This equates to an additional 4½ cents per bushel cost to the farmer for getting his product to market, not to mention the increased costs for fertilizer. Any consideration of the other things in the administration's proposal, such as unspecified license fees, segment fees, lockage fees, tools, and charges on all those things would be a double whammy for the farmer.

Generally, commercial navigation has long since agreed to pay their fair share of the cost of maintaining the navigation channel. They are deeply concerned that too little concern has been given to two areas: The overall cost of channel maintenance; and the fair and equitable allocation of costs to the wide range of beneficiaries.

Full cost recovery has become an oversimplified computation of forecasting consumption of diesel towboat fuel and thus arriving at a waterway fuel tax that will generate sufficient revenues to offset the corps' operation and maintenance budget.

The administration has rightfully undertaken a cost-conserving, budget-cutting approach to good government. We do not feel that the corps' operation and maintenance budget should escape the same scrutiny. Obviously it would be sacrilegious for commercial navigation interests to recommend a reduction in the corps' budget for channel maintenance. We do believe we can do this. We can simultaneously support adequate funding for channel maintenacne while advocating stringent cost justification for the corps' own budget.

Since early 1970 various Federal laws such as the Clean Water Act, the Endangered Species Act, and State regulations have imposed numerous restrictions on the corps' traditional channel maintenance dredging procedures. It was often easier for the corps to acquiesce to the demands of the Environmental Protection Agency, the U.S. Fish and Wildlife Service and the State Department of Transportation and Conservation Commission in dredging and dredge disposal activities. It was easier than to seek clarification of conflicts in statutes and tax regulations.

Until the administration advanced its concept of full cost recovery, the corps' O. & M. budget was strictly something that was between the corps and the Congress, and the concerns of commercial navigation about lack of cost justification were given short shrift. However, if the Congress is to ask commercial navigation interests under the full cost recovery concept to pay for the additional cost of all the environmental projects that have crept into the corps' current O. & M. budget, then it is being asked to retroactively foot the bill without ever having had a voice in the decisionmaking process.

The graph that I handed out and which I'm going to refer to here, basically I think you've all seen before. But what it says is that the corps' cost of dredging in the St. Paul district for the period 1970–74 has roughly a 12-percent annual average increase. You can see what has happened since 1970.

The dashed line on that chart simply projects the 12-percent increase on out. I think the important figures are this: In 1974 the actual cost of dredging was 73 cents a cubic yard. In 1980 it was $8.50. Now if we project it it would be roughly $1.44.

Senator **Abdnor**. What happened in that year? What happened in that big drop?

Mr. **Timm**. I said I would bring a panel of experts.

Mr. **Quarve**. There were a number of specific projects around the airport that took a lot of yardage without having to move it anywhere.

Mr. **Timm**. If Congress is merely to impose a waterway fuel tax to satisfy the corps' appetite without any restraint of cost justification, then what you're doing is—interstate shippers are being taxed to fund State projects through which their shipments pass. Should a North Dakota farmer be taxed for a corps' $300,000 survey on the Higgin's Eye Pearly Mussel?

Many of these increased costs are directly attributable to the Great River Study Committee which the corps authorized in the Water Resources Development Act of 1976.

I participated in a commercial navigation work team which opposed the Great No. 1 channel maintenance plan throughout for three reasons: A reduced hydraulic dredging capability; derrogation of marine safety by reason of reduced depth dredging; and lack of cost justification. The U.S. Coast Guard and the U.S. Department of Transportation have consistently opposed the implementation of the Great No. 1 channel maintenance plan. In my prepared material you will find a letter from Admiral Venzke of the U.S. Coast Guard, to Brig. Gen. Scott Smith, Division Engineer of the North Central Division of the U.S. Army Corps of Engineers. The Great No. 1 channel maintenance plan was not recommended by the Upper Mississippi River Basin commission comprehensive coordinated joint plan. It's now out for 45-day review and the Coast Guard has indicated it will not give it approval. It's likely that it won't be approved.

In the draft implementation report for the Great No. 1 study, the corps, last November, proposed three alternatives. Here's what they are: The basic program is continuation of operation and maintenance of the nine-foot navigation project and to comply and incorporate as many of the Great No. 1 recommendations as current funding levels and scheduling will allow. Step No. 2 is the first priority program. Implementation of the higher recommendations contingent upon justification and receiving necessary funding increases which would increase annual O. & M. costs by $3 million.

Early implementation of the Great No. 1 program—the third stage—full implementation of all Great No. 1 recommendations at a cost of $9 million.

In view of the fact that the corps' dredging costs have already increased more than sixfold since 1974, we can assume that the basic program of continuation of operation and maintenance of the 9-foot navigation project calls for incorporating as many Great No. 1 recommendations as we can get the money for. But what about the second step? Our analysis shows that there are 305 acres of select sites. A simple calculation of $3 million increase in the corps' O. & M. budget is $120 million, or a cost of $393,442 per acre. This, we believe, illustrates our concern for the lack of cost justification.

In an April letter from the Wisconsin Department of Natural Resources to the St. Paul District Corps of Engineers in response to an inquiry relative to emergency and imminent closure dredging definitions—and I hope you get the emphasis "emergency"—they held "It is critical that there be no deviation from the Great I definition." The definitions taken from the Great I report are the definitions that the State of Wisconsin will be applying to the corps' dredging commencing with the 1981 season.

On December 31, 1980, the St. Paul District Engineer petitioned the Wisconsin Department of Natural Resources relative to their water quality permit, it's called a polution discharge elimination system permit. They said: "Special conditions of the permit are neither technologically nor economically achievable by the permittee and beyond the capability of the permittee and not consistent with the purposes of chapter 147."

A public hearing was held on that on June 4, and believe it or not, the association was not permitted to intervene because it had no interest. The main issue in that particular reading was this: Whether best available technology could meet the requirements of the Wisconsin permit. The corps contended that the best available technology could not meet the requirements of the permit. The corps is awaiting a ruling by the hearing examiner. Meanwhile, we actually have channel conditions posing concerns over marine safety. They continue to exist, and the corps dredging operations take on the character of a fire department rushing to and fro to put out brush fires at drastically increased costs.

Basically I guess what we're saying—and I have to kind of lead up to this—there is an obsolute necessity that the corps be required to allocate its O. & M. budget to each of the beneficiaries. There is a study coming out that indicates the corps currently has the ability to allocate the costs between commercial navigation, hydropower, recreation, fish and wildlife, environmental quality, water supply, water quality, and flood control. They can really, fully and fairly make the distribution.

Here's what we recommend: A very slight change in section 404(t) of the Clean Water Act of 1977 by adding this little proviso: "Requirements beyond that minimally necessary to maintain navigation shall only be undertaken by the Secretary after securing a quarantee of reimbursement by such state or interstate agency proposing it." We don't oppose the use of dredged materials for beneficial uses. We merely expect all the other beneficiaries to pay their own way.

Senator ABDNOR. Very good. I want to ask Mr. Newstrand: Have you seen any part of the Department of Transportation's 2-year study that they're to conclude in October? Have you seen anything of it at all?

Mr. NEWSTRAND. No; I haven't. I have talked to one of the study managers a few times about parts of it, but I haven't seen any part of it.

Senator ABDNOR. Do you think we're going to see a great discrepancy in that, or do you think there will be a lot of the same findings?

Mr. NEWSTRAND. I would suspect that the level of impact demonstration in the Federal Department of Transportation Study will be significantly lower than ours. I would also suggest that their recommendations might very well include those types of charges that we have tried to demonstrate are least beneficial to areas at the hand of the navigation systems.

Senator **Abdnor**. When that comes out will you take the time to go through it and give us your analysis of it? We need someone to give us some suggestions.

Mr. **Newstrand**. We intend to go through it in great detail.

Senator **Abdnor**. Alright. Because as a group you're knowlegable in the field, probably more so than some of us, especially with your study. You would be able to take this study and point out where you feel they fell down with some of their facts. I'm not saying we'll agree with your effort but we'll have something to fall back on. Is that a good idea?

Senator **Durenberger**. Yes. When you listen to the various interests that have a stake in this unique resource called the Mississippi River, it sort of comes home to you that prior to imposing a substantial part of the cost of operating and maintaining structures in the river itself, that those who depend on the river as shippers or as barge companies, transportation companies, ought to be bothered by the fact that as a Nation we really haven't or don't seem to have made a total commitment to the river as a transportation employment facility, and in our national sense there is this constant struggle here about where the public interest lies in the river. I'm just curious to know that if we ever develop some semblance of a national transportation policy and in that made a commitment to inland river or water transportation systems, would it not be much easier for you and us to make policy relative to the role of user fees?

Mr. **Lambert**. If the Congress of the United States would clearly indicate a national transportation policy based on not what is best for the mode but best for the Nation—the movement of energy, export coal, the export of grain, and then backed into which modes could best accomplish those goals—you would have a national transportation policy that we then could all fall in line with.

Mr. Fenney made the comment that all the Pacific rim grain could be better moved out of the Pacific coast. Well, the fact of the matter is that you couldn't do it. If it's that simple why don't they do it? They can't move it through the ports there, so that's not a solution.

The river exists. It is a viable artery of commerce. It has capacity unused, and we'd take it over and maintain it tomorrow except it's not our river. You and the Congress have said so. You've mandated all these other uses. If you can sort out which portion of it we're to pay for, I don't blink you'll have any problem with commerce paying its own share.

Senator **Durenberger**. I'm just struck by the fact that not a lot of you have taken strong positions against user fees. There are people in interest that should have an interest in the issue that were invited to testify that said "We just don't yet have a position." My reaction to all of that is that a lot of people don't want to see people not willing to pay some form of a fair share, and so it makes it more difficult for me after today to say, "Boy. We ought to get ahold of that transportation study and then Dave Stockman and then let's get about the business of making some national policy on user fees" because particularly with the Mississippi, I'm sure there are other water facilities to which this theory doesn't apply, but when we talk of the Mississippi and the other inland rivers we really haven't sorted out yet as a Nation what kind of a transportation function we want them to fulfill. Until we do that I just don't know how we can make good, acceptable policy that everybody will believe in and will participate in finally and every other way, and that certainly goes for agricultural interests which at the present time are in a real quandary—we saw here 2 years ago. I mean, if I represented an agricultural interest—as I already do, but not on the other side of the table today—I'd oppose any additional cost. But I heard those two farmers say—just like on the embargo and a lot of things in this country—we're willing to do our fair share and I don't know how we can define "our fair share."

Mr. **Lambert**. I think you have to mandate the Corps of Engineers to get their accounting system sorted out. It's either flood control or navigation. We know that they can break it up. They've done a test to study it, but until they've done it you can't intelligently determine how much of that $9 a ton is being done to maintain the river for navigation, and how much is done for the Higgin's Eye Pearly Mussel. I've done it on the Rock Island, the St. Paul, the Pittsburgh, and the St. Louis districts. You can look at the account titles and make a good guess, and I guess when I look at Rock Island I'm concerned that at 10 cents we're paying more than our fair share now.

Mr. **Quarve**. I think you've hit on a very vital subject here, and that is the question of national transportation policy. I've sat here all afternoon and I still have not heard anyone talk about geography. All I have to do is look at the damn map of the United States and you've got the answer. You've got a statement from me there, and on the second page there I'd just like to take 40 seconds to read this. It says "Last January 1981 over 3,700 loaded barges, or roughly 200 million bushels of grain, were moored in that 125-mile area in a ready market and export position to all areas of the world." I'm talking about Baton Rouge to New Orleans, where most of it goes through. So the importance of the river navigation system is really dictated by geography, which none of us can change. That's basically the thing that we have to remember in formulation of national philosophy. The Mississippi River has to be accepted just like the Atlantic, and every form of transportation needs governmental help with a good climate from Government. We've gone from a transportation shortage of just a few months ago, now we're in a surplus. The improvement by the railroads has been tremendous, and that has to continue. But at the same time we have to have fair play with the truck modes and the rivers and so forth, but we go back to the key thing of geography.

Senator **Abdnor**. With that I'm going to adjourn our meeting. Thank you. We've gone 1 hour and 15 minutes longer than we were supposed to and our reporter has had it.

[Whereupon at 5:15 p.m. the subcommittee adjourned to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

PREPARED STATEMENT OF DR. JOSEPH P. ROSSILLON, EXECUTIVE DIRECTOR, FRESHWATER FOUNDATION

My name is Dr. Joseph P. Rossillon. I am the Executive Director of the Freshwater Biological Research Foundation which is housed in Navarre, Minnesota. I will not be presenting scientific testimony but rather the attitudes and concerns of an organization whose motto is "To Keep Our Freshwaters Useable". If I were to title this presentation, it would be "Beliefs Die Hard, Change Comes Harder."

In 1973, we, in the United States, came face to face with information about our energy resources which suggested that our old beliefs, assumptions and attitudes towards energy were no longer applicable. Since that time, we as a people have completed a major change in attitude and use toward energy consumption; but, it has taken 8 years.

Now it appears that a similar situation is about to occur with our water supplies, and I am not sure we have the luxury of 8 years to adjust. Most of our uses and abuses of water are based upon assumptions that, if correct at one time, no longer apply. Let me ennumerate these assumptions.

Assumption #1 - Water is an unlimited supply; there's more where that came from.

Although, in fact, small amounts of water are being perpetually created and dissipated, the total amount of water in our universe has not changed significantly since creation. Of that vast amount, only .3% is available, useable freshwater for our world. This total amount averages approximately 2,000 gallons per day per man, women and child in the world. We now use that amount daily in the United States and it is estimated that by 1985 we will be using 2,500 gallons per day.

Not only is the supply of available water limited, many supplies are being threatened. The San Joaquin Valley in California has dropped over 30 feet, due to overpumping of the aquifer. The Ogalalla aquifer is now being overpumped in many locations through the west central states. The level of salinity in the Colorado River is now causing the water to be unacceptable for agricultural production.

Even in Minnesota, the land of 10,000 lakes, we now realize that we have no water running into the state (it all runs out) and that our average annual rainfall is only 26.5 inches, our sole source of water.

Assumption #2 - Water cleans itself.

We as people have grown up thinking that water is and should be pristine. In fact, water is Mother Nature's sewer system. Everything in nature ends up in water and the quality of that water is determined by the biological balance of all the materials in it. We would be better to think of water as a septic tank.

The three things that make a septic tank fail to function properly are overload, killing the bacteria, or introducing materials that the bacteria don't recognize. All three of these situations are occurring in our nation's water supply. In addition, bioaccumulants and toxics inadvertantly distributed or stored below ground and leeching into our water supplies are making some major supplies of water unuseable. These materials bioaccumulate and will not be cleansed naturally from the water supplies leaving those supplies perpetually vertually unuseable.

Assumption #3 - There's plenty of water for everyone.

This assumption is valid only if a) the people are where the water is; b) the local use of the water is compatible with the amount that exists in that location; and c) the water in that location is in a useable condition. The current mass migration to the southwestern part of the United States where limited water exists taxes the premise that "there's plenty for everyone."

Assumption #4 - Everyone has access to "potable" water.

According to the World Health Organization, 75% of the people in the world do not have acceptable drinking water. That percentage is increasing, not decreasing, and the percentage of people with unacceptable drinking water in the United States is increasing each year.

Assumption #5 - That water is "my water", to use as I see fit.

In a case before the Supreme Court of the State of Minnesota, it was established that a) individuals do not own the water under their property, and b) there should be a priority listing for water uses: 1) people, 2) livestock, and 3) food production.

The problem of outdated assumptions towards water and water use are further complicated by a multiplicity of physical water problems across the United States. In the east the primary problems evolve around obsolete distribution systems and the infusion of hazardous wastes into water supplies. In the midwest, the primary concern is nutrient overload in surface waters (the principal source for municipal water systems) and the infusion of agricultural chemicals and nitrogen into aquifers. In the west the principle problem is distribution of limited water supplies to growing populations and agricultural use that are not related to or located near the limited water supplies. In the coastal states, on three sides of the United States, the overpumping of the aquifers have created a salt water encroachment into the aquifer that threatens to make those supplies unuseable in the years to come.

When we begin to search for solutions, the single most obvious solution is that we must change - change our attitudes - change our uses - change our beliefs. A paradigm shift must occur similar to that which has occurred with energy in a very short period of time.

The principle ingredients of change are information, education and incentives.

1. The basis for information is research. We need to determine new ways to maintain the quality of those limited water supplies that we have and make it possible for multiple uses of all water supplies.

2. A major educational program similar to these programs relating to energy, cancer and heart disease need to be introduced to help people understand the need for change with water.

3. Any change requires some type of "incentive" program and perhaps the most valid incentive program related to water use would be a realistic cost-use factor. Biologist Garrett Hardin said that "Sky and water become polluted because they belong to everyone, they are free. When something is free people tend to take more than they need." This is a condition he terms "The tragedy of the commons".

   Some indications of cost-use inequities are:

   a. Estimates that user paybacks on federal irrigation projects run about 8% of the project cost;

   b. Reports that farmers in Colorado who pay $2.50 per acre foot for irrigation water rights and sell those rights for $2,000 per acre foot;

c. An estimate that the California Central Valley Project loses $79,000 per day;

d. According to the Dept. of Agriculture, an estimate that the federal subsidy in the California westlands district is worth $1,500 per acre; and

e. An estimate that the proposed irrigation system for South Dakota that, when completed, will change farmers about $3.10 an acre foot for water that will cost the federal government $131.00 per acre foot to produce.

The Minneapolis Fire Chief, who used city water to fill his backyard pond, was quoted as saying "I have no qualms about writing a check for this water. Water rates in this city are so reasonable it's almost ridiculous."

In conclusion, the ultimate water issue in the United States is not going to be a quantity/quality problem; it is going to be a "useable" problem. Can we provide enough useable water, at the right place, at the right time, of an acceptable quality, at an acceptable and legitimate price?

That, to me, is the real issue today.

STATEMENT BY
THOMAS J. KALITOWSKI, CHAIRMAN, MINNESOTA WATER PLANNING BOARD
TO THE
WATER RESOURCES SUBCOMMITTEE OF THE SENATE ENVIRONMENT
AND PUBLIC WORKS COMMITTEE
ST. PAUL, MINNESOTA
AUGUST 12, 1981

I am Thomas J. Kalitowski, Chairman of the Minnesota Water Planning Board. The Minnesota Water Planning Board is a state agency composed of five state agency heads; three citizens appointed by the Governor; and an independent, full-time chairperson. The Board is responsible for coordinating development of comprehensive responses to water and related land resources concerns of the state.

By law, the Water Planning Board is responsible for "directing all state involvement in activities undertaken pursuant to the federal Water Resources Planning Act" and the chairperson represents the Governor on federal-state basin commissions. I currently represent Governor Quie on the Upper Mississippi River, Great Lakes, and Missouri River Basin Commissions. I am presently Vice-Chairman of the UMRBC.

I am pleased that you and your subcommittee have elected to meet in Minnesota, Mr. Chairman. Too often Minnesota is perceived as a water-rich state which does not have to be overly concerned with national water resources policy. This is a false image. We are deeply concerned, as Senator Durenberger's interest and presence today attests.

National Water Policy Development

Mr. Chairman, I have reviewed much of the testimony already provided to the Subcommittee. I also provided earlier testimony. Perhaps it is considered implicit, but one crucial item on which testimony has not adequately touched is the role of Congress in national water policy development.

In my view, Congress must be the body to articulate national policy goals. The Executive Branch -- through a National Board of Water Policy or a similar structure -- can make recommendations to Congress and can map a strategy based on the goals articulated by Congress, but it should not usurp the legitimate role of Congress in establishing these goals. Conversely, Congress cannot allow itself to be lulled into inaction by the mere establishment of an Executive Agency.

National goals must reflect the aspirations of the citizens of the Nation for their social, economic, and environmental well-being. As members of Congress, you are elected to reflect these aspirations.

To carry out this responsibility, I would urge Congress to look at how it deals with water resources policy development. For example, in looking at the July 22 Congressional Record I found three separate House hearings on water policy matters. Also, six separate Congressional Committees would be included on the Commission on Federal Water Policy recently proposed in the House of Representatives.

Given the multitude of Congressional committees dealing with substantive water issues, the establishment of a joint committee of House and Senate members for the sole purpose of coordinating the formulation of a comprehensive, coherent water policy may be desirable.

An Executive Branch Structure for National Water Policy Development

In June, I submitted testimony to the Subcommittee which stated my conviction that: (1) a fundamental requirement of better water planning and management is an ongoing process for establishing policy directions, with a focal point at each level of government; (2) there is a clear need for an interstate communication and coordination structure, with federal involvement and financial assistance; and (3) state water and related land resources planning and management must be accelerated in the near-term and federal supplementary assistance is required to achieve such acceleration.

In my opinion, the first priority in national water policy development must be authorization of and appropriations for a substitute for the Water Resources Planning

Act (P.L. 89-80). While I do not support all of its provisions, I generally prefer the approach you recommend in S. 1095, Mr. Chairman. The National Board of Water Policy with a State Advisory Committee is a solid idea. However, I continue to be concerned with the establishment of the Office of Water Programs in the Department of the Interior. Secretary Watt has not made water policy reform one of his top objectives, even though he admits that the poor condition of water planning is one of the surprising things he has observed since entering office.

As I stated earlier, it is my conviction that there is a need for an interstate communication and coordination structure, with federal involvement and financial commitment. While Title IV of S. 1095 authorizes the continuation of basin commissions, I am concerned that funding be available for federal involvement. While Title II money could be used for basin commission studies, functional federal participation is not provided for.

If the state's are to be prepared for a new role in federal water policy -- such as would occur under the Domenici-Moynihan bill (S. 621) -- a substantial planning assistance program is essential. I believe that this is not a statement solely in the state interest, but one in the national interest as well.

National Policy for Financing Water Project Development

A major thrust of national water policy development must be a determination of how policy directions will be implemented -- the financing mechanism. Major attention is being given by this Subcommittee to water project development financing through block grants (S. 621) and to user fees for waterways (S. 809 and S. 810). There are other considerations I urge you not overlook in looking at financing national water policy implementation such as Clean Water Act construction grants and erosion control. To a state such as Minnesota where water problems are sometimes traceable to poor planning or delayed action rather than water shortages, the latter programs are extremely important.

The needs for change addressed in the Domenici-Moynihan bill must be dealt with. It is intolerable that it takes 26 years to move a typical Corps of Engineers project from the point when a study is authorized to the time construction begins. The City of Rochester provides a tragic example. In 1963, the Corps of Engineers and the Soil Conservation Service began joint planning for a flood control project for the city. Twelve years later, advanced engineering design was begun, with completion of construction planning estimated for F.Y. 1983. In June 1978, the Corps' project justification began: "A potential exists for catastrophic flood damages in Rochester..." In the summer of 1978, 5 people died in a Rochester flood.

S. 621 contains several innovative steps which I support. The block grant concept and the increased role proposed for states are laudable. However, there are also a number of problems which I believe could crop up in implementation. Most importantly, I believe the basic structure provided in a replacement for the Water Resources Planning Act, P.L. 89-80, must be in place prior to implementation of S. 621.

Conclusion

In conclusion, I want to clearly point out that the State of Minnesota supports the Reagan Administration in its efforts to control the growth in federal spending and the pursuit of a fiscal policy that will stem the tide of inflation. It is our conviction that continued active federal involvement in water policy development, regional commissions, and state assistance does not require additions to the total federal budget. It is really a matter of priorities -- and national water policy development in partnership with the states must be a high priority.

Within this priority area, I believe that the Congress must:

** Concentrate first on authorizing and funding a replacement for P.L. 89-80, based on S. 1095;

** Focus on financing approaches for implementing national policy, including consideration of block grants without cumbersome strings; and

** Consider establishing a joint committee structure which better permits Congress to focus on defining national water resources policy goals.

I thank you, Mr. Chairman, and members of the Subcommittee for this opportunity to express my views.

MINNESOTA-WISCONSIN BOUNDARY AREA COMMISSION
619 SECOND STREET. HUDSON. WISCONSIN 54016
Serving Our Sponsor States on the St. Croix
and Mississippi Rivers since 1965

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U. S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON WATER RESOURCES
SAINT PAUL, MINNESOTA - AUGUST 12, 1981

PUBLIC HEARING STATEMENT BY JAMES M. HARRISON, EXECUTIVE DIRECTOR, MINNESOTA-WISCONSIN BOUNDARY AREA COMMISSION:

Mr. Chairman, Senator Durenberger, and members of the subcommittee. The Minnesota-Wisconsin Boundary Area Commission is an interstate compact advisory and coordinating commission on the Upper Mississippi and St. Croix Rivers for our two sponsor States here in the headwaters area of the great Mississippi River Basin. I have been executive director of the commission since 1968 and have, therefore, been quite involved in many complex intergovernmental water resources programs and activities for almost 13 years. These activities have had implications and outcomes of national significance for two reasons: (1) the Mississippi and St. Croix Rivers are recognized in law and in fact as national natural resources, and (2) some of the results of our cooperative, intergovernmental efforts in this region have been precedent-setting and are looked upon by many people as models of how to succeed in this business in other areas of the country.

Without taking any more of my very few minutes of allotted time to establish my credentials, I will offer some basic ideas for your consideration as you wrestle with the volatile subject of water resources use, development and protection policies in our country at this time, with particular emphasis on institutional arrangements for water management.

Let's start with the fundamental question of how much authority will be vested in which action organizations. Of course, historically, the United States Congress has reserved unto itself most of the water development decisions requiring federal action. When we got into a brawl in federal court eight years ago with the State of Wisconsin suing the Corps of Engineers over alleged illegal or irresponsible navigation channel dredging practices, the federal judge involved issued a temporary injuction requiring the Corps to modify its methods in Wisconsin waters of the Mississippi River for one year, and then said in his opinion that he did not want to be the one to have to balance the issues in the case. Our Commission, seeking to facilitate a way out of the deadlock, took the matter directly to members of Congress from our two States who agreed that there ought to be a way to maintain navigation in an environmentally sound manner on the sensitive, multiple-use areas of the Upper Mississippi River. The outcome of this was the Congressionally-mandated GREAT River Study now on its way to Washington for approval and implementation. A cooperative Federal-State-public effort produced a much-improved, better-balanced channel maintenance plan which recognizes the unique dual navigation and fish and wildlife refuge policy on this reach of the Upper Mississippi. It also produced an out-of-court settlement and created an immense amount of good will among agencies and people who had only known how to win by confrontation or intimidation before.

The point of this illustration is that we went directly to the source of nearly all national water management authority, the Congress, to get the job done. Our representative government worked to promote and greate a water policy arrangement tailored to the needs of this region, built by and for the people of this region. It met our needs and proved to others elsewhere that it's possible to work within long-established bureaucratic systems to achieve good results. It isn't necessary to create a new agency or institutional arrangement for tasks where there is already a defined, legislated administrative authority. I would recommend against any strong, national manager arrangement in water resources; from my perspective it cannot be justified unless the principal criteria for water policy is going to be as a political tool. And that I object to most strenuously. Water is a natural resource and so basic to meeting human needs that it is tempting to manipulate with it through some unwritten accounting system in Washington, D. C. I am speaking against that kind of heavy-handed manipulation by any branch of government...executive, legislative or judicial. I think Congress ought to let go of a few of its reigns, too, and allow more local and State initiative and require more local and State responsibility, including dollar investments in water resources development programs.

Speaking from my own experience, I believe people in our region accept the strong, active presence of federal managers on our national natural resources like the St. Croix National Scenic Riverway (National Park Service) and the Upper Mississippi River (Corps of Engineers and Fish and Wildlife Service). These rivers transcend State boundaries and parochial regional interests. So, we do need to be able to interact as local, State and regional citizens with the national managers in these particular kinds of areas. We need to have assurance that federal officials and technicians will be authorized and funded to meet with us and work as a team, as we have and still do on the two rivers here. I am not yet convinced we need to perpetuate the basin-commission style of activity, unless it becomes a truly national mechanism for policy formulation and water allocation.

So, if I am against greater or even the same centralized control over water policy decisions and investments, I am in favor of allowing the States who share concurrent jurisdiction with one another and with the federal government on major water bodies to establish their own interstate arrangements under the Constitution, with provision for appropriate, coordinated federal participation at the regional level. As you know, the Upper Mississippi River system is now the subject of a Master Plan formulation mandated by Congress. Part of that Master Plan will be a statement of recommended institutional arrangements for this particular river system. That may well be the most appropriate way for Congress to look at a case study of what I am talking about; a border river involving several States and having multiple benefits because of its size and diverse environment. Congress will have this Master Plan proposal before it in January. Meanwhile, I would urge you to seriously consider taking a step of faith...disperse some of the centralized water management authority with requirements of more local and State responsibility and investment. We've shown it can be done this way. I believe wholeheartedly in the axiom that if people help us write a program they should, and will, help us underwrite that program.

Thank you.

THE JULY 1978 FLOOD
ROCHESTER, MINNESOTA

The Zumbro River flowing gently through Rochester provides an almost pastoral setting and an interesting focal point for the community. However, this gentle river, swollen in excess of its natural capacity by heavy rains, can go on a rampage. This was the case at Rochester, Minnesota, during the night of Wednesday, July 5 and early morning of Thursday, July 6, 1978.

Rochester is located in southeastern Minnesota, in the heart of a prime agricultural area. The city was built at the confluence of Bear Creek, Silver Creek, Cascade Creek, and the South Fork of the Zumbro River and has a population of about 60,000. The world famous Mayo Clinic which employs over 5,000 people, along with many hospitals and other clinics, are located in Rochester. The city is also the home of a major IBM manufacturing and development facility which employs approximately 5,000 workers.

The greatest threat of floods in Rochester result from the severe summer thunderstorms which are highly unpredictable and can cause rain at tremendous rates far exceeding normal stream capacity. The 1978 storm put the equivalent of 5 1/2 inches of water over the entire watershed, with over half of the watershed receiving between 6 and 7 inches of rain. This rain fell on soil which was generally saturated from the rains of the preceding week resulting in over 60 percent of the rain running off into the streams. As recently as one month ago, July 1981, Rochester was spared a similar occurence when over 6 inches of rain fell; we were extremely fortunate because soil conditions allowed absorption of the intense, heavy rainfall.

In 1978, two-thirds of the community was affected by the flood, including 2,500 residences which were directly affected by flooding. A major impact of the flood was the threat to public health and safety. A nurses aid and three elderly women in wheel chairs drowned when their elevator at a nursing home near Bear Creek dropped into a basement filled with water. A fifth person drowned in in a car which was swept off a county road 10 miles southwest of the city.

Over 60 million dollars of property damage resulted from the flood. Since the flood, recent figures show there are now 2,411 Flood Insurance policies with a total premium payment of $263,750.00 for total coverage of $82,075,700.00.

Total road and bridge damages in the affected five county area were estimated at about 5 million dollars. Soldiers Field, the most popular recreation area in the city, has an 18-hole golf course, tennis courts, ball diamonds, park and picnic facilities, suffered damage estimated at nearly one million dollars. At Mayo Civic Auditorium, floodwaters submerged the first fifteen rows of seats and all furniture on the main floor. The basement in Fire Station No. 1 was completely flooded along with 18 inches of water on the first floor. The County Health Center was heavily damaged with four feet of water on the first floor. Three school buildings, including Mayo High School were flooded, with losses estimated at one-quarter million dollars.

Residential losses from the flood were staggering. A Red Cross survey revealed that almost 3,500 single-family homes were affected by the flood. About 700 automobiles were flooded with many declared a complete loss. Total damages to automobiles have been estimated in excess of one million dollars.

Business losses included structural building damages, damaged inventories, temporary lay-offs during business shut downs. Eighty small businesses and 18 large businesses incurred heavy losses in equipment and some lost their entire inventories.

Rochester's mayor and common council firmly believe legislation for flood control in Rochester should stand on its own merits, not as part of a Water Resources Bill. We strongly favor the type of legislation as contained in S.F.621 which would allow state distribution of funding for flood control projects.

The Army Corps of Engineers Plan is in the final planning stage. If authorization is granted in this session of Congress, construction can proceed in 1984 as projected; otherwise construction will be delayed, with construction osts mounting ever higher.

We are also concerned about the S.C.S. plan which has been authorized but is tied up in the Office of Management and Budget. Planning is a major portion of Rochester's area flood control package.

Respectfully submitted,

Peter Solinger, Chairman
Rochester Flood Control Committee

Chuck Hazama, Mayor
City of Rochester, Minnesota

Statement of Minnesota Farmers Union

by Don Knutson
Congressional Liaison

Mr. Chairman, my name is Don Knutson. I am the Congressional Liaison for Minnesota Farmers Union (MFU). Our organization is a general farm organization, representing some 24,000 family members in our state. Our main office is located at 1717 University Ave, St. Paul.

Unlike many of the other companies and organizations represented at this hearing today, Minnesota Farmers Union is not directly involved in the shipping and handling of inland waterway cargo. Our appearance at this hearing, however, cannot be underestimated on those grounds.

Because to a great extent it is our farmer members who have the least to gain and the most to lose through proposed legislation to increase federal inland waterway user fees.

Statistics indicate that approximately 55 percent of the Midwest's agricultural exports exit this part of the country via Mississippi River barges. Another 40 percent of our home-grown commodities reportedly leave via the Great Lakes while the remaining 10 percent is sent to West Coast ports via rail. To re-emphasize, 55 percent of our agricultural exports are transported down the Mississippi.

Our organization has diligently tried to determine how much increased waterway user fees will cost our state's farmers. Our best estimates indicate that an immediate diesel fuel tax of 15¢ per gallon will increase per bushel transportation costs by at least 5¢. If the administration's proposal to increase the fuel tax to 35 cents per gallon were approved by Congress, it is very likely the per bushel shipping costs will increase by 20 to 30 cents.

There is no doubt in the minds of Minnesota Farmers Union members that all of these increased transportation costs will be eventually passed on to farmers in the form of lower commodity prices. Let me remind the members of this committee that net farm income for 1981 according to USDA predictions will be the lowest level in recent memory. At this point in history, farmers cannot absorb any more unequitable expenses, and farmers are not in any position to pass along increased costs.

We've heard a lot of talk in Washington this year about the value of American exports in relation to our balance-of-payments ratio. According to Secretary of Agriculture John Block, the 1981 Farm Bill is a prime example of a free-market piece of agricultural legislation. MFU finds it rather ironic the administration asks our farmers to produce more while at the same time they are acting to drastically increase user fees on this nation's primary inland waterways.

We believe all the production in the world won't do our members or the nation any good unless we can insure our transportation system can handle the increased cargo efficently and at an economical cost.

We believe the maintenance and improvement of our waterway systems is just as important to our civil defense as is the maintenance and improvement of our national defense. Both of these systems protect and preserve our national security in different, but equal ways.

There are some administration experts, however, David Stockman of OMB in particular, who argue that spending $325 million per year (by 1983) on waterway subsidies is excessive.

I ask the members of the committee to ponder this question: If the citizens of this country were asked to decide whether to spend $325 million per year to maintain our entire inland waterway system or to spend $500 million to refit one outdated World War II battleship, what would they choose?

Gentlemen, there are some things in life more precious than the number of deck guns on the U.S.S. Missouri.

So, what is the solution to the matter of funding our inland waterway system? MFU suggests two possible solutions: First, Congress should decide once and for all that our inland waterway system is a matter of national security and that its usage, maintenance, and improvement is for all and will be paid for by all. The second solution may be more difficult to implement, but it is an alternative Congress should explore. The solution would require that foreign purchasers of our agricultural products bear the cost of shipping our grains from the point of holding --whether that location is Great Falls, St. Paul or St. Louis. We make the latter suggestion based on knowledge that many foreign countries enter our markets, buy our grains, and then double the price of those commodities once they reach foreign shores. I cite the following example. If a foreign government can buy our wheat for $3.50 per bushel and then later sell the same grain to their own people for $7.00 per bushel, isn't it only right and proper that the United States can make the purchaser responsible for all or part of the inland waterway shipping costs?

So far in this testimony our organization has only addressed the problems associated with higher user fees on agricultural products leaving the Midwest. In short, we have addressed only half of our concerns.

Our regional cooperatives also have a great deal at stake when Congress acts on this issue. For whether it is fertilizer, petroleum products or farm machinery and parts, the Mississippi River is used to bring vital agricultural supplies into the Upper Midwest. Higher waterway user fees will translate into higher input costs to farmers. Clearly, if waterway user fees are increased as proposed, farmers will "pay the freight" both ways.

In my concluding comments I quote from President Reagan's Program for Economic Recovery, page 3-1:

"To the extent that traffic will be diverted to other less costly forms of transportation because of changes in shipping costs resulting from the proposed tax increase, our total transportation system will be economically more efficient."

MFU disagrees with that statement for at least three reasons: 1) At present this region does not have a year around shipping season on the Great Lakes. 2) This region continues to see an erosion of our rail transportation system through the abandonment of low volume branch lines. 3) The Administration is proposing to eliminate federal funding for our secondary road system.

This region of the country needs more transportation opportunities than our system can provide today. We need more Federal transportation aid, not less aid.

Mr. Chairman, the Reagan Administration views the Mississippi River as one mode of Midwest transportation - a mode of transportation with alternatives. MFU, on the other hand, views the Mississippi River as a lifeline for our agricultural community. We will resist any legislative measures to strangle this lifeline.

Thank you. Please feel free to ask any questions you may have.

TESTIMONY PRESENTED BEFORE
THE SENATE WATER RESOURCES SUBCOMMITTEE HEARING
WEDNESDAY, AUGUST 12, 1981

Mr. Chairman and members of the Subcommittee.

I appear before you as a representative of the Transportation Committee of the American Soybean Association. My name is Ralph Prescher. I am a farmer from Delavan, Minnesota, where I raise soybeans, corn and hogs. I am also President of the Minnesota Soybean Growers Association. As you know, soybeans are an important crop in Minnesota. Minnesota farmers last year produced 152 million bushels or $1.1 billion worth of soybeans.

The administration's proposed inland waterway user fee concerns us for two reasons: first, America's soybean industry has a vital interest in maintaining a viable, efficient inland waterway navigation system. Second, any increase in waterway transportation costs, which would result from user fees, is likely to have a negative impact on farm income.

Since half of America's soybean crop is consumed at home and half is sold overseas, with 50 percent moving by water at some point in the transportation chain, soybean producers are acutely aware of the need to maintain and selectively upgrade the nation's entire water transport system. About 55 percent of our soybean production is exported to foreign customers in Asia, Europe and Central America. Soybeans represent 21 percent of the total U.S. agricultural exports and 4 percent of all U.S. exports. As the nation's largest cash export item last year, soybeans contributed $8.6 billion toward a positive U.S. balance of payments.

Domestic consumption of soybeans reached approximately $7 billion last year. Any snag in the smooth operation, maintenance and development of our inland waterway systems sends tremors through the intricate soybean transportation network and impairs our ability to adequately service our markets at home and abroad.

Soybeans bound for export are currently transported in three directions: down the Mississippi River system to the Gulf of Mexico, through the St. Lawrence Seaway and the Great Lakes system to the Atlantic and from east coast ports. Last year 79 percent of the total soybean exports left the U.S. from Gulf ports, 12 percent from east coast facilities and 8 percent from the St. Lawrence Seaway and the Great Lakes system. Very few soybeans were exported from the west coast.

The American Soybean Association supports the concept that users of a transportation system should help pay for what they use. Growers are not opposed to shouldering their fair share of the costs of inland waterway operation, maintenance and development as long as we pay only our proportionate share on an equitable basis. If increased user fees are applied, we urge Congress to mandate cost recovery based on benefit. Put more directly, soybean growers strongly urge that not just commercial but all users, including recreational and military craft, pay their commensurate share. Soybean growers also feel that inland waterway benefits extend beyond navigation and include flood control, military strategic value, potential electric generating capacity and also benefit wildlife habitat. For this reason, we strongly urge Congress to fully assess all benefits accruing from the nation's inland waterway system

BEFORE IMPLEMENTING USER FEES. CURRENTLY THE U.S. ARMY CORPS OF ENGINEERS ACCOUNTS FOR ALL WATERWAY EXPENDITURES EITHER AS NAVIGATION OR CHANNEL MAINTENANCE. A PORTION OF THAT COST HAS NOTHING TO DO WITH THE MOVEMENT OF COMMODITIES.

IN ADDITION, WE URGE THAT FULL ANALYSIS OF THE IMPACT COST RECOVERY ON BENEFICIARIES, INCLUDING AGRICULTURAL PRODUCERS, SHIPPERS, EXPORTERS AND OTHER TRANSPORTATION MODES BE MADE BEFORE ACTING UPON THIS LEGISLATION. WHILE THE COMPLETION DATE OF THE SECTION 205 INLAND WATERWAY STUDY BEING DONE BY THE DEPARTMENT OF TRANSPORTATION IS DRAWING NEAR, SOYBEAN GROWERS RECOMMEND THAT CONGRESS INVESTIGATE WHETHER THE STUDY WILL ACTUALLY ADDRESS THIS USER COST BENEFIT IMPACT QUESTION, ESPECIALLY AS IT RELATES TO SPECIFIC FEE TYPES AND UNIFORM VERSUS SEGMENTED COST RECOVERY. WE ALSO URGE YOU TO CONSULT WITH U.S.D.A. OFFICE OF TRANSPORTATION DURING YOUR DELIBERATIONS. IN SHORT, LET'S LOOK BEFORE WE LEAP.

ASA FEARS THAT THE BRUNT OF INLAND WATERWAY EXPENSES WILL BE BORNE BY THE AMERICAN FARMER. FOR THIS REASON, ASA CONSIDERS COST RECOVERY A FARM INCOME ISSUE. IT IS HIGHLY UNLIKELY THAT INLAND WATERWAY USER FEES WILL BE ABSORBED BY SHIPPERS. INSTEAD, WE FEAR THAT THE INCREASED TRANSPORTATION COSTS WILL BE PASSED BACK TO THE GROWER IN THE FORM OF REDUCED PRICE PER BUSHEL OF THEIR PRODUCT OR WILL BE ADDED ON TO THE MARKET PRICE FOR OUR FOREIGN AND DOMESTIC SOYBEAN CUSTOMERS. CONSUMERS MAY OR MAY NOT BE WILLING TO ABSORB THIS INCREASED COST, DEPENDING ON WHETHER THE WORLD SOYBEAN MARKET IS A BUYER OR SELLER'S MARKET. AT THE MOMENT, WORLD SOYBEAN DEMAND IS SLACK AND A FAVORABLE BUYER'S ENVIRONMENT EXISTS. IN ADDITION, THE U.S. HAS BECOME A RESIDUAL SOYBEAN SUPPLIER TO THE SOVIET UNION AND OTHERS AS A RESULT OF THE U.S.S.R. GRAIN EMBARGO.

IN SUMMARY, WE ARE WILLING TO PAY OUR SHARE OF THE COST RECOVERY FEES, BUT ONLY OUR FAIR SHARE. IF COST RECOVERY FEES WERE INITIATED NOW AS PROPOSED, THE FARMER WOULD EITHER RECEIVE LESS DIRECT INCOME PER BUSHEL OR EXPERIENCE A FURTHER DEPRESSED WORLD DEMAND FOR SOYBEANS WHICH WOULD FURTHER REDUCE THE FARMER NET INCOME. IN RECENT TESTIMONIES BEFORE CONGRESS, ADMINISTRATION OFFICIALS INDICATED THAT IMPLEMENTING USER FEES TO RECOVER THE COST OF OPERATING, MAINTAINING AND IMPROVING THE NATION'S INLAND WATERWAY SYSTEMS COULD INCREASE TRANSPORTATION COSTS BY 3 TO 9 CENTS A BUSHEL. THIS WOULD MEAN A NET LOSS PER FARMER OF BETWEEN $200 AND $600 A YEAR. IF SOYBEAN GROWERS HELP PAY FOR THE SMOOTH OPERATION, MAINTENANCE AND DEVELOPMENT OF AMERICA'S INLAND WATERWAY SYSTEM, THEN WE URGE THE CONGRESS TO ESTABLISH PROCEDURES BY WHICH WE, PRODUCERS OF RAW MATERIALS WHO ARE AFFECTED, SHOULD HAVE A GREATER INPUT INTO THE ESTABLISHMENT OF PRIORITIES FOR CAPITAL IMPROVEMENTS AND INVESTMENTS ON THE NATION'S INLAND WATERWAYS.

THE MINNESOTA SOYBEAN GROWERS ASSOCIATION AND THE AMERICAN SOYBEAN ASSOCIATION STAND READY TO WORK WITH YOU AS CONGRESS CONSIDERS THE LANDMARK INLAND WATERWAY COST RECOVERY LEGISLATION BEFORE US. OUR WASHINGTON REPRESENTATIVES WOULD GLADLY FURNISH ANY FURTHER AND MORE DETAILED INFORMATION REGARDING THIS MATTER TO YOUR SUBCOMMITTEE IN WASHINGTON.

THANK YOU FOR THE OPPORTUNITY TO EXPLAIN THE AMERICAN SOYBEAN FARMERS' VITAL INTERESTS IN USER FEES AND THE NATION'S VALUABLE WATERWAY SYSTEM.

AT
8/11/81

Statement of Richard Kruse, Sr.
Minnesota Wheat Growers
on Waterway User Fees
August 12, 1981

My name is Richard Kruse, Sr., a farmer from Breckenridge, Minnesota. I am a member of the Minnesota Wheat Growers Association and the Minnesota Wheat Research and Promotion Council. I would like to testify on behalf of the Minnesota Wheat Growers in opposition to the implementation of user fees to recover operating, maintenance and construction costs on inland, coastal and Great Lakes waterways.

A major portion of the Nation's wheat production is grown in areas which are a long distance from points of ultimate consumption. Minnesota and the Dakota's are perhaps even worse off than most because we are literally at the end of the marketing chain. Our producers must bear the cost of huge freight bills, sometimes over 30 percent of the value of the crop, in order to move the commodity to its point of utilization or export.

David Stockman, the Director of the Office of Management and Budget, was recently quoted as saying that the user fees will result in a three to nine cent a bushel increase in grain prices. He also indicated the the user fees would most affect the producers near the waterways. We believe that this demontrates Mr. Stockman's lack of understanding of American agriculture. The farmer is a price-taker. His prices are determined by the market place and he pays the freight to move his grain to the market. He also pays the freight on all of the agricultural machinery and inputs that he must buy. Therefore, in a surplus supply situation as we are now facing, the user fees will not increase prices by three to nine cents, but rather will increase transportation costs by three to nine cents, resulting in lower prices received by the producer for his product.

Competition in transportation is also a key to holding costs down. The intermodal price relationships between trucks, railroads, and waterways and the competition for "shares of the market", determine the price the producer pays. Therfore, any increases in the cost of waterway transportation will be mirrored by increases in the cost of other transportation modes as well. So all producers will suffer, not just those near the waterways.

User fees also would charge the cost of waterway development to specific segments of the economy while many other segments and other important programs such as flood control or environmental protection will benefit.

User fees to recover the full cost of constuction, operation and maintenance of the U.S. waterway system could also result in making the U.S. producer less competitive in the world marketplace, to the benefit of other exporting countries. Agriculture is one section of America's economy that can effectively compete. But rather than nuturing and promoting agricultural trade, many people insist on regulating it, restricting it or leaching off of it. A recent study by the Agricultural Council of America indicates that for every $1.00 in agricultural products exported, a total of $2.05 in benefits accrue to the U.S. economy. Therefore, public waterways benefit the entire public so costs should be borne by all of the public.

The implementation or increase in user fees carry with them far greater ramifications than many supporters may believe. Therefore, the Minnesota Wheat Growers urge the subcommittee to give full and objective consideration to the impact on not only agriculture, but the entire economy, and to reject any attempts to impliment cost recovery user fees on the Nation's waterways.

The St. Lawrence Seaway is the only waterway on which constuction costs are to be repaid and these increasing toll charges continue to make the Twin Ports of Duluth and Superior less competitive to the financial disadvantage of the Upper Great Plains grain producers. We urge that consideration be also given to waiving the debt on the Seaway construction in order to make this waterway a more viable artery for moving U.S. products.

PREPARED TESTIMONY OF FORD ROBBINS, SIERRA CLUB

WATER RESOURCES -- REFORM NEEDED

The more than 210,000 members of the Sierra Club, a national environmental organization, today seek long-overdue reform of America's archaic water resources policies.

America's national water policy today amounts to a scandalous fiasco. In mismanaging our water resources for most of two centuries, we have managed to bleed the federal treasury while creating ecomomic and resource chaos. The water resources "system" we've established is no system at all -- it is a pork barrel hodge-podge; an environmental disaster.

Billions of dollars have been spent on water development programs in an orgy of subsidies without clear goals -- or, worse yet, with contradictory goals.

- For example, the amount of farm land "reclaimed" and brought into production by Bureau of Reclamation dam and irrigation projects over the years is about 12 million acres. *But that same amount of land, much of it excellent crop land, has been submerged in the process.*

The water projects we have built -- dams, navigation canals, ports and the like -- have often benefited only a few persons -- a single locality or even a single comapny, but have been paid for by all taxpayers without any real pay-back or clear national benefit.

- For example, the massive development of highly subsidized irrigation in California's Central Valley displaced fruit and vegetable production from other regions of the country. This benefits a few now-wealthy California landholders, but economically devastated the regions which lost production due to subsidized "cheap" water in California. *Through it all there is no clear net benefit to the public which footed the lion's share of the bill.*

The foolish and extravagant love affair with water development for water development's sake has cost billions of dollars and caused environmental problems for our children's generation. In their lifetimes -- indeed, in the 1980's -- clean, abundant water will be a scarce and costly resource in our "land of plenty."

First the "Energy Crisis" -- Now the "Water Crisis"

Problems with the supply of conventional energy sources and their soaring costs are all too familiar today. In the 1980's, this nation will face a crisis of water supply and water quality that is no less threatening to our well-being and our economy. Like the energy crisis, the water crisis is largely of our own making, built on years of neglect, business-as-usual pork barrelling in Congress, and simply wrong-headed policies protected by the very interests gaining the most from huge federal subsidies.

The particulars of the looming water crisis may vary from east to west, from rural to urban settings. But everywhere in America, we will face the need to change our water policy. Time is running out in many regions, yet the battles over water are just beginning. No less than with energy, these are struggles over scarce and costly resources that will reach to the most powerful boardrooms and the highest levels of government.

Past decisions that have permitted waste of water and that have committed limited supplies of water to boondoggle development projects at ridiculously subisdized prices will haunt us all as we face the "water wars" of the 1980's. But we cannot solve the problems ahead without fundamental reform of the existing policies which have bred them.

Throughout, we must ask how the interests of the public can prevail over the entrenched water development interests and their captive bureaucracies in the Corps of Engineers, the Bureau of Reclamation and the state water agencies.

Everyone's Been Talking About Water Reform . . .

In 1950, President Truman's Water Resources Supply Commission concluded that

> The blunt truth is that instead of getting coordinated plans, we stumble along amid a multiplicity of separate plans by the federal, state and local agencies that finally are thrown together in unsatisfactory planning. Again and again, projects are undertaken as if they were ends in themselves, instead of parts of a program designed to meet the needs of our land and of our people.

President Eisenhower's Hoover Commission, five years later, reported that

> The federal government's organization for carrying out its policies on water resources and power development lacks coordination, fosters competition among its agencies, causes controversy, confusion, duplication and waste and encourages rather than curbs bureaucratic ambitions.

And, more recently, President Jimmy Carter noted in June 1978 that

> Twenty five separate federal agencies spend more than 10 billion dollars per year on water resources projects and related programs. These programs are often planned without a uniform standard basis for estimating benefits and costs.

In 1973, a National Water Commission study made some simple-sounding policy recommendations, echoing the same conclusions from previous studies. These are the fundamental reforms which, though so often written and spoken about, still remain to be carried out:

- Those benefited by water projects should pay for them -- both construction and operating costs -- rather than the public that is taxed for subsidies.

- The backlog of authorized projects should be eliminated and we should use more realistic benefit-cost ratios in determining which projects should be built.

- States should have a greater responsibility in planning, guiding, building, and paying for water projects.

Have our past approaches led to sound water resource decisions? In the face of drinking water contaminated with toxic chemicals, and irrigation water rendered useless by its salt content, we must ask whether benefits and costs have been correctly accounted. In the frenzy for more and more "new starts" on new projects, who's been looking out for the long-term effects and impacts?

In the arid West, reclamation projects subsidized by taxpayers in other regions have resulted in settlement of areas beyond their capacity to sustain the population growth that water development induced.

In the Great Plains (and elsewhere), we are mining groundwater. As boldly and as rapaciously as the timber barons of old, we are fostering a "drain the groundwater" craze. Water is theoretically a renewable resource, but when an aquifer is "mined" (taking out more water than is returned by recharge), we are living off the principal, the future be damned.

Our love affair with dams has resulted in huge economic and social displacements, as though we could forever move more and more water around with never a thought for the cost (so conveniently paid for by the unwitting taxpayers somewhere else!)

In short, if our reclamation and navigation projects had been deliberately designed to make a select few rich, and to promote economic growth in some favored regions while destroying the economy in others, then America's water policy must be counted a huge success. If our goal is to meet all of our people's water needs, to have an economically rational transportation system (rational in terms of a free market), to protect our people's health, to distribute resources equitably, and to encourage the family farms, then our water policy today is a dismal failure.

As with the energy crisis, we'll soon enough be having to relearn old, forgotten frugalities about water conservation. As with energy, conservation of water is the quickest, cheapest way to increase supply. Pricing water at its real cost (instead of pretending it's free so long as someone else really pays) is one effective way to promote water conservation.

The Sierra Club is determined to wield its nationwide grassroots power to press politically for water policy reforms. Fundamental to our goals are the twin concepts of water conservation and 100% cost recovery for water development projects.

- 100% of the construction and operation costs (plus reasonable interest payments) should be recovered and repaid from those who benefit from any water development project (dam, port, canal or ditch).

- Water conservation must become a daily reality, as our people and our economy come to recognize that water is not free, nor is it as plentiful as we've assumed.

THE PRESENT HEARINGS

There are three major matters of public policy regarding waterway transportation facing this Subcommittee:

--Should there be an increased federal involvement in the financing, constructing and planning for deep water ports, particularly for the purposes of exporting coal?

--What additional investments in the nation's shallow draft waterway system should be authorized by the Congress in the near future?

--What additional cost recovery mechanisms should be put in place to assure an efficient transportation system that is not disproportionately taxpayer financed?

The Sierra Club's views on the first of these topics have been separately addressed during these hearings

The second requires relatively little attention at this time. There have been a number of bills introduced into the 97th Congress that authorize major new expansions of waterway navigation capacity on the Ohio River System and elsewhere. We presume that there will be separate hearings on these specific proposals, and will be prepared to give our views at the appropriate time.

There is, however, a troublesome line of argument that runs through many of these legislative proposals. Many bills we have seen this year allege a primacy and importance for waterway development projects in order to exempt these projects from environmental, judicial, and even Congressional review. Procedures have been suggested that would negate the beneficial scrutiny provided by the National Environmental Policy Act; projects are to be shielded from judicial review for any claims short of Constitutional grounds; the administering agency is to be given a free hand to disburse enormous amounts of money on major projects without receiving further Congressional authorization.

Clearly, we cannot accept any such provisions. We believe that they are being promoted by the waterway industry purely in order to serve their own interests, that there is no conceivable public policy argument to uphold awarding waterway transportation projects a unique status among governmental and social endeavors, and that if implemented they would make a shambles of the nation's programs for environmental protection and of our entire national transportation system.

Indeed, we believe that many waterway projects result in a net economic loss for the nation as a whole. As this Subcommittee well knows, water projects have been subjected to endless claims and counterclaims regarding their economic soundness. This leads to the third of the major areas in which this Subcommittee has an interest, the question of cost recovery mechanisms. Not the least important reason for adopting water project cost recovery measures is to test the various economic arguments advanced by project proponents and opponents. Project beneficiaries should be willing to bear the cost of projects that are in fact economically sound; those projects that cannot secure the financial support of the beneficiaries can be assumed to be equally uneconomic for the taxpayers.

In the field of waterway transportation the Sierra Club has long advocated waterway user charges. There are two basic reasons for our position. First, we believe that the nearly free ride being enjoyed by the waterway industry artificially attracts commerce to river systes with multiple values, and that the consequence is environmental deterioration that does not even have a valid economic justification. Second, we believe that many proposed new waterways would fail the economic test mentioned above, and that the result would a major decrease in investment in new segments. This decrease in investment would give a reprieve to important river biological and recreational systems that would otherwise be doomed.

The Sierra Club believes that a properly constructed user charge system would be comprised of the following elements:

--100% of all waterway operation and maintenance costs would be recovered from users. It must be understood that operation and maintenance costs include all expenditures that are made necessary by the waterway improvement whether or not those costs lead to an additional benefit to the commercial waterway improvement itself. For example, it is clear that there are major additional expenses that must be undertaken on both the Missouri River and the Upper Mississippi River in fish and wildlife mitigation, improved dredging practices, and similar activities in order to salvage those rivers and reverse a trend that if allowed to go unchecked would cause them to be nothing more than murky ditches. These costs must be considered part of the navigation project and must be recovered through O & M user charges, for they would not have been incurred were it not for the conversion of the rivers from a natural system to a commercial waterway.

--100% of all new waterway construction, and all measures to expand capacity of existing waterways, whether structural or nonstructural, should be recovered from users.

--The user charge for new construction and expansion should take effect upon enactment of the law, and should include all work not actually completed and paid for as of that date. There should be a reasonable phase-in period of the O & M user charge of not more than six years.

--The user charge should be collected through a variety of mechanisms, the precise formulation to be determined by the administering agency on the basis of equity, efficiency of administration and effectiveness in collecting revenues. Such mechanisms might include license fees, ton mile fees, segment charges, congestion tolls, and the like.

--Unless recreation was a premeditated, integral project purpose, recreational craft should not have to participate in the user charge program. In almost all instances waterway improvements designed for commercial purposes are a hindrance, not a benefit, to recreational boaters: they should not have to pay. In the few cases where recreational boaters do benefit, that benefit is incidental to the project and should not be considered in the cost allocation.

--A user charge must be viewed purely as a cost recovery mechanism, and not as a substitute for other kinds of environmental or policy review. Even where waterway improvement and maintenance is economically justified, as evidenced by the willingness of the users to bear the cost, there may well be environmental or social factors that should lead to a decision against the project.

We specifically object to any trust fund provision that permits the Corps to expend monies with any increased discretion over current statutory arrangements. The public trust in managing and allocating our public waters is far too important to be delegated in fundamental ways by the Congress to the Executive Branch.

With these points in mind we would like to comment specifically on the two proposals before this Subcommittee, S. 810 and Senator Domenici's set of amendments to S. 810. Both are excellent proposals with which we generally concur, but each has certain provisions to which we would take exception.

While in many respects these two proposals are similar, they contain fundamentally different concepts for the timing of recovery for new projects. S. 810 apparently envisions recovering new project costs over the life of the project, with a built in discount rate for comparing present and future dollars. The Domenici amendment calls for user charges on a "pay as you go" basis. Construction of a new project could only take place if the Inland Waterways Trust Fund contained sufficient monies to cover the year by year construction costs.

We believe that both approaches have merit, and do not at this time recommend one over the other. It is important that which ever is adopted conform to the criteria spelled out above, and that there be no future "forgiveness" should the quite stringent provisions result in denial of a waterway proposal.

S. 810 recovers the full cost of operation, maintenance and new construction. The level of recovery is perhaps the single most important feature of any user charge proposal, and we heartily concur with the 100% provision.

S. 810 provides for agency discretion in establishing a collection mechanism. We agree with this approach.

S. 810 provides for immediate implementation of the program, a feature with which we concur.

Section 4 of S. 810 is confusing, and appears to reduce the effect of the entire bill. It appears that this section is an attempt to arrive at a general formula for allocating navigational costs and benefits to projects that are at least arguably multiple-purpose in nature. For no apparent reason there is an immediate 10% forgiveness even where the project is admittedly only for purposes of navigation. In addition, clause (3) could be interpreted as a means of avoiding such costs as fish and wildlife mitigation made necessary by the navigation project.

Some formulation of allocation to the navigation sector is clearly necessary. Most waterway projects are 100% for navigation, and other claimed benefits prove upon examination to be spurious. We believe that all waterway projects should be assumed to be 100% for navigation unless the Corps makes the following findings:

--There was one or more additional benefits explicitly included in the project description and calculation at the time the project as authorized; and

--The additional benefits have actually materialized since authorization, can be quantified, and at least offset any losses that may have occurred in the same sector.

Where the Corps can make such a finding it should be required to come back to the authorizing Committees in Congress for ratification, with a plan for cost recovery from non-navigational beneficiaries for the non-navigational costs.

S. 810 provides for a realistic interest rate for long term project amortization. The Sierra Club agrees with this provision.

In addition to the major conceptual difference in new project recovery, the amendment offered by Senator Domenici deviates from S. 810 in the following principal ways:

--The operation and maintenance recovery is reduced from 100% to 75%, and the new construction recovery is reduced from 100% to 50%. We cannot agree with these changes, and we urge they not be adopted.

--There is a longer phasing in period. We believe that the phasing in period for O & M charges is reasonable, but believe that the new construction charge should take effect immediately.

--The Domenici amendments appear to allow the Secretary of the Army complete discretion to construct new projects within the constraints of the Inland Waterway Trust Fund and other applicable statutes. While we agree that the mechanism of the Trust Fund is useful in safeguarding the concept that expenditures do not exceed receipts, we cannot agree with the apparent waiving of the requirement for Congressional authorization.

In conclusion, we would like to congratulate Senators Stafford, Abdnor and Domenici for their initiative in introducing waterway user charge legislation. The Sierra Club believes that the greatest advance the Congress can make this year and next year is in the area of cost recovery for many types of water resource projects. The "giveaway" aspect of the federal government's role in water resource management has probably been the most important single factor in distorting the rational use of our nation's waters.

The Sierra Club has not stood alone in its support of waterway user charges. Every U.S. President in the last forty years has advocated waterway user charges. Over this same period of time there have been at least ten major studies that have come to the same conclusion.

The Congress took the first tentative step in 1978 with the passage of Public Law 95-502. President Reagan has made it clear that tentative steps are no longer enough in addressing our federal spending policies. It is a pleasure to be able to support this President in advocating a measure that should have equally beneficial impacts on the economy, the environment, and our transportation system.

We urge this Committee to pass strong user charge legislation.

Statement of Joseph D. Feeney
General Counsel, Western Railroad Association

...

My name is Joseph D. Feeney. I am General Counsel of the Western Railroad Association. I appear here today on behalf of the midwestern railroads.

Opposition to the waterway user charge legislation raises a basic question which has yet to be answered: if the Corps of Engineers claims that the expenditure of hundreds of millions of taxpayers' dollars for a waterway project is justified by benefits which exceed those expenditures, how can the barge industry, at the same time, claim that a user charge will wipe out those benefits and result in the traffic moving by rail or some other means? The two claims are inconsistent.

The midwestern railroads compete with barge operations on the Mississippi and connecting waterways. These railroads support the Administration's proposals for the full recovery of costs associated with commercial navigation from the users of the inland waterway system.

We share David Stockman's view, as expressed in his July 16, 1981 statement before your committee, that subsidies not only increase the size of the Federal budget, but almost inevitably distort the workings of our free market economy.

We also take the position that the Administration's waterway user fee proposals will not only help to reduce the federal budget deficit but, in addition, will help create a more efficient transportation system.

The importance of competitive equity for all competing modes of transportation was well covered by William Dempsey of the AAR in his June 16, 1981 statement before your committee.

Mr. Dempsey stressed the fact that when Government subsidies, rather than the marketplace, make resource allocation decisions, our nation's resources are not channelled to their most productive uses. Also, that while economic efficiency is best achieved when the market makes resource allocation decisions, the marketplace is not being allowed to test the value of proposed waterway projects.

The overall objectives of those recommending waterway user charges are to reduce the Federal budget deficit, prevent distortions in our transportation system and improve the waterway investment decision-making process, largely by providing a market test for project need and economic feasibility, and that is the objective of the midwestern railroads.

Concern has been expressed about the effect of a waterway user fee on the marketing of grain by farmers in Minnesota, South Dakota and Iowa. May I respectfully suggest that while the Gulf ports will always export grain, substantial future marketing opportunities lie with the railroads moving grain to the west coast ports, and that this provides a more efficient use of resources. The railroads have recently published unit train rates from Minnesota and South Dakota to Pacific Northwest ports. On corn moving from Sioux Falls, South Dakota to Japan,

the rail distance to to Seattle is	1808 miles
the ocean distance to Japan is	4900 miles
for a total of	6708 miles
In contrast, the rail distance from Sioux Falls to Savage, MN is	238 miles
the barge distance to New Orleans is,	1,700 miles
and the ocean distance to Japan	10,500 miles
for a total of	12,438 miles

The time required for the movement of grain to Japan via Seattle is 29.8 days, while the Gulf is a minimum of 59 days.

Comparing the transportation charges from Sioux Falls, South Dakota to Japan, shows the effect of the additional mileage through the Gulf ports. Using the railroad unit train rate to Seattle and an ocean charge of $11.50 per ton gives a total charge of $1.07 per bushel to Japan. On the other hand, using a rail-barge combination from Sioux Falls to the Gulf with an ocean charge of $25.00 via the Panama Canal yields a total charge of $1.13 per bushel from Sioux Falls to Japan, or a difference in favor of rail to the west coast of six cents. Having in mind that at least 20 percent of our export corn and soybeans move to Japan and the Pacific rim countries, the railroads provide the South Dakota and Minnesota grain shipper a substantial advantage in marketing their produce. The proof is the fact that export corn shipments through west coast ports have increased from less than one percent of total exports in 1975 to 15 percent of total exports in 1980.

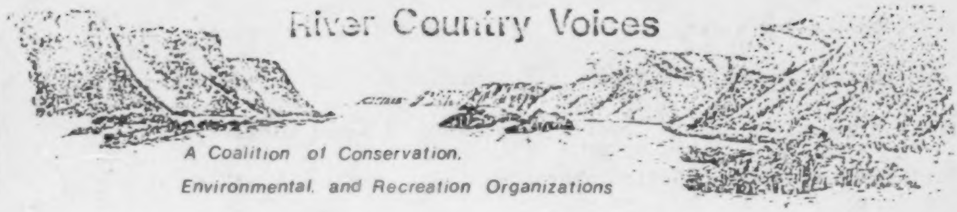
The question of immediate concern is the effect of any waterway user charge on the price paid the farmer for his grain. A recent paper by Dr. Lowell Hill of the University of Illinois, delivered at the meeting of the American Agricultural Economic Association, concludes that the price paid the farmer is not closely related to barge costs. This conclusion is based on a comparison of grain prices at New Orleans with barge fuel costs.

This raises an interesting question that needs to be answered before any conclusions are drawn that a waterway user charge would be passed on to the farmer. In 1981, according to the waterway trade publication, barge rates have been falling during the same period of time that the 4 cent per gallon barge fuel tax was being collected. This experience indicates that in the real world the factor which controls barge rates is demand, and that is what determines what the farmers will pay for barge service.

The 1978 Annual Report of the Dravo Corporation, commented on the financial prospects of its Equipment and Transportation Group which includes Union Mechling Corporation, one of the nation's largest barge operators. The Report noted that the effect of the waterway user tax passed in 1978 should be negligible.

The farmers have a stake in the future of rail service. Not only does the rail system provide a stand-by means of moving grain when the northern waterways are frozen or when barge operations are disrupted by floods or low water, but the rail system offers farmers the opportunity of marketing their grain through port elevators other than the ten elevators on the lower Mississippi. A local elevator in southern Minnesota or South Dakota, can sell corn and soybeans at any of the Gulf port elevators from Corpus Christi on the west to Mobile on the east and move it to any one of those ports for the same rail rate. Farmers can also market through any of the west coast ports from Puget Sound to California and Lake Ports from Superior to Chicago.

The collection of user charges does not eliminate the need for careful economic analysis before the decision to build a project is made. If the primary purpose of a project is to provide or expand water transportation facilities, the question must be answered whether the transportation can be provided by some other means with less net expenditure of resources. If the total resource cost by water is greater than moving the goods by rail, then there is no net benefit to the public from building the project. If it is public policy to build waterways for the benefit of a few farmers or other shippers who can ship in barge-load quantities to move their products, even though the net benefits are less than the cost, then pay them a direct subsidy; do not spend the money for a waterway project and subject the public funds to the deductions imposed by the bureaucracies in Washington and the construction industry. This type of careful analysis of proposed projects is not being performed at present. The answer to the question, can the goods be moved with less resource cost goes directly to the question I raised initially -- If the barge industry claims that recovery of cost will destroy the waterway system, then this is prime evidence that the Corps' analysis has been wrong and the benefits of the system did not exceed the costs in the first place.



River Country Voices

A Coalition of Conservation,
Environmental, and Recreation Organizations

VISIONS FOR OUR RIVERS

A CITIZEN'S PROPOSAL FOR THE UPPER MISSISSIPPI & ILLINOIS RIVERS

Summary of Principal
Conclusions and Recommendations

(Complete copies of the Report available from River Country Voices)

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INTRODUCTION

This proposal is the culmination of a massive inquiry by River Country Voices. A fifty page questionnaire was sent to 410 environmental, conservation and recreational organizations and leading individuals who had agreed to help with the project. In an astonishing participation rate, considering the massiveness of the document, 160 questionnaires were returned.

A preliminary summary was prepared and sent out to all respondents, as well as to others who expressed an interest. Several hundred comments were received. In addition, the River Country Voices Policy Committee, a widely representative group of environmental, conservation and recreational leaders, met for a day to dissect the preliminary document line by line.

This report summarizes the result of this process. It is as complete an answer as is possible to the question "What are environmental objectives of the Upper Mississippi River System, as defined by the Environmental community itself?"

There are a number of important features that must be noted:

-- This report is not simply the brain child of any individual writer or group of activist leaders. It in fact is as accurate a synthesis of a major public sector's views as it is possible to construct.

-- Because of that fact, there is probably no single person, including any of the immediate authors, who would agree with every point 100%.

-- While comprehensive, the report does not pretend to be complete. Nor can it really be considered final, for finality can never be achieved in a document of this sort. Discussion, comments, proposed amendments are always welcome.

DREDGING PRACTICES

-- Dredging to maintain the current commercial navigation channel has significant adverse impacts on the environmental and recreational values of the river.

-- States should retain the authority to regulate the disposal of dredged material and should continue to require the Corps of Engineers to obtain a permit from the appropriate state agency before dredging within the state's boundaries.

-- States should have strict environmental standards that are met by the Corps before such a permit will be issued. These standards should address at least water quality, protection of habitat (both aquatic and terrestrial), hydrological impacts, impacts on floodstages, and aesthetic impacts.

-- Costs of complying with state standards should be part of the Corps' channel operation and maintenance budget, and should ultimately be borne by commercial navigation interests through user fees.

-- Expansion of the Corps' emergency dredging definition should not be accepted. Instead, lighter loading of barges should be required during low water periods. Barge drafts in excess of 8½ feet on barges loaded after the date an appropriate Mariner's Notice is issued should be prohibited. If an overloaded barge runs aground when such a Notice is in effect, the barge line should be fined and made to pay the cost of emergency dredging.

BARGE FLEETING

-- In many locations on the UMRS, existing and proposed barge fleeting operations significantly conflict with other uses and values of the Rivers.

-- Problems associated with barge fleeting include loss of habitat as wetlands are dredged and trees used for mooring are uprooted; usurpation of fishing and hunting sites; interference with use and enjoyment of adjacent park and wildlife refuge areas; noise and odor pollution in residential areas; blocking of public access to the river; water pollution from activities such as barge cleaning; and safety problems due to breakaway barges and inadequate mooring.

-- Regulation to control the siting and impacts of barge fleeting operations is essential.

-- Fleeting permits should evaluate actual need; safety; impacts on fish and wildlife habitat; water quality; compatability with nearby shoreline uses; aesthetics and effects on recreational uses.

CARGO SPILLS

-- Accidents associated with the transport, loading and unloading of tank barges are a significant source of river pollution. This pollution tends to be concentrated in areas of great ecological vulnerability (i.e., shorelines, estuaries

COMMERCIAL NAVIGATION LEVELS

-- The myth that with "better management" the river environment can absorb unlimited barge traffic without harm will have to be abandoned, and a limit must be set on levels of barge traffic that use the river system in the future.

-- The primary consideration in determining the permissible level of barge traffic on the Upper Mississippi River System must be the impacts of that navigation on the biological communities of the river channels and backwaters.

-- Preliminary findings show a strong relationship between higher levels of commercial navigation and degraded biological communities.

-- Impacts on the shoreline from development induced by increasing navigation capacity and the impacts of navigation on recreational use of the river must be considered.

-- In providing for an expanded transportation system in the Midwest, Congress should principally rely on railroads. Rail transportation is far less damaging environmentally because rail lines are already in place and the principal environmental impacts have already been incurred. And, preliminary studies from sources other than the UMRS Master Plan indicate that reliance on railroads would cost less.

INLAND WATERWAY USER FEE

-- Substantial costs are incurred each year by the American taxpayer to build, operate and maintain the inland waterway system for commercial navigation.

-- The environmental community strongly supports the concept that commercial tows using the inland waterway system for commercial transportation should be required to pay a user fee.

-- The full cost of new construction, rehabilitation, channel maintenance, lock maintenance and operation, and reduction of fish and wildlife losses caused by navigation should be covered by fees levied on commercial users of the system.

WINTER NAVIGATION

-- The navigation season on the Upper Mississippi above Grafton, Illinois should not be extended.

-- A set, closed navigation season should be established based on biological parameters, including the time during which fish populations are wintering in the main channel.

-- Winter navigation on the Illinois River should be reevaluated using similar criteria.

(Cargo Spills continued)

and inland backwaters).

-- All new tank barges using the inland waterway system should be required to have double hulls. Until existing single hulled tank barges are retired, they should be subject to increased Coast Guard inspections and required to make certain design modifications to decrease danger of ruptures and leaks.

-- Double-hulled barges should be required immediately for use as lead barges in tank barge tows to lower the frequency of cargo spills from front end collisions.

-- There should be stiff fines and requirements for barge lines to pay cleanup costs and damages when spills occur. There should be no artificial limitations on liability imposed by legislation.

FISH AND WILDLIFE

-- Proper management for fish and wildlife on the UMRS should include expanded funding for habitat rehabilitation.

-- There must be authority for managing agencies to prohibit or modify activities such as shoreline development and recreational uses that have an impact on the quality of the habitat and the viability of fish and wildlife populations.

-- The "General Plan" lands, owned by the Corps and managed by the Fish and Wildlife Service as part of the refuge system should be turned over to the Fish and Wildlife Service to erase the management ambiguity caused by the current situation of split ownership.

NATURAL AND CRITICAL HABITAT PROGRAM

-- A program to preserve both natural and critical habitat on the UMRS should be jointly implemented by the Fish and Wildife Service, the Corps of Engineers and the state natural resource agencies.

-- A complete inventory of natural and critical habitat areas should be compiled for the UMRS. Field work should be initiated to complete the inventory for areas that have not been surveyed for natural and critical habitat.

-- Inventory data should be used by local, state and federal agencies in deciding whether or not to allow development subject to their regulation in a given reach of the river corridor.

-- An acquisition program should be developed that insures preservation of natural and critical habitats.

RECREATION

-- Recreation facilities are in short supply: including environmental education and study centers, boat access points and ramps, hiking trails, canoe trails through the sloughs, boat sewage disposal facilities, primitive campsites, bluffland parks and cultural and historic sites.

-- New facilities should be provided. Their actual need and location, however, should be determined on a case by case basis for each pool or area.

-- The Corps of Engineers and the Fish and Wildlife Service in cooperation with state resource agencies should be responsible for developing recreational management plans to provide for the desired recreational opportunities, reduce the conflicts among recreational users, and minimize conflicts with the fish and wildlife resource.

-- Private investment in recreation facilities should not be discouraged. Private sector recreation facilities and services should be considered in these plans, and the same management and siting standards should apply to both private and government sponsored facilities and services.

-- The steady loss of cultural and historical sites along the river system is a problem. These sites must be preserved. Federal funding must be increased for programs to identify new sites and to complete the inventory of existing sites. All identified sites should be protected from bank erosion and incompatible development.

-- In acquiring new lands for recreation federal and state agencies should emphasize acquisition of lands that will preserve the natural, scenic and fish and wildlife resources that are the base on which recreational opportunities depend.

-- Protection of scenic blufflands overlooking the river corridor and preservation of open spaces near urban areas are particularly pressing needs due to current patterns of development that threaten these areas.

WILDERNESS

-- Significant tracts of Wildlife Refuge land should be preserved in as pristine a natural condition as possible, so that they can be enjoyed as wilderness and so that natural processes can prevail now and in the future.

-- It is clearly time to proceed with planning for wild area preservation, whether the means chosen is the Wilderness Act or some other statutory or administrative scheme.

-- If the agencies continue to postpone commitment to this issue, citizens should take it upon themselves to draft a wilderness proposal that allows for the special problems of the UMR.

RECREATIONAL BOAT LOCKAGE

-- Recreational boaters frequently find themselves competing with commercial towboats for lockage past the dams on the UMRS.

-- Lockage waiting areas should be provided for recreational boaters that must wait long periods of time while a commercial tow is locking through. These waiting areas should be funded by the Corps of Engineers as a necessary expense of the nine foot channel projects to mitigate the impact on recreational craft that would have no lock and dam barriers to contend with without the commercial navigation project.

-- Recreational boats should be given priority lockage rights immediately following each complete towboat lockage. All recreational craft waiting to lock through should be accommodated before the next towboat is allowed to lock. Because recreational craft take a fraction of the time to lock, the delay to the towboats is minimal.

ENERGY PRODUCTION

-- Power plant construction should not be allowed on U.S. Fish and Wildlife Service Refuge lands. In addition, electric transmission lines should not be constructed across Refuge lands unless there is virtually no other alternative.

-- New nuclear plants should not be constructed on the floodplain of the Upper Mississippi River System because of the possible catastrophic effects on both humans and the river ecosystem of the downstream transport of nuclear contamination.

-- An interagency study should be conducted before retrofitting UMR dams with hydropower facilities.

WATER QUALITY

-- The U.S. Department of Agriculture in cooperation with the states should establish a program to stop excessive soil erosion in states bordering the Upper Mississippi River System. This should be accompanied by an incentive program of both penalties for noncompliance and economic assistance in hardship cases to achieve compliance.

-- Proper funding and enforcement is needed to clean up point source pollution problems under existing authorities.

FLOOD CONTROL AND FLOODPLAIN MANAGEMENT

— Floodplain management should seek to avoid actions that adversely affect the floodplain, (i.e., that reduce flood storage capacity thus increasing flood-stages elsewhere, that destroy valuable wetlands and fish and wildlife habitat, and that impair groundwater recharge functions).

— The approach to flood control through levee construction should be re-evaluated and the alternative of relocating uses and structures should be carefully considered.

— The process of developing mathematical models, that can be used to predict whether a proposed development will increase flood stage levels in its vicinity if built, should be continued.

— Providing taxpayer-subsidized insurance to individuals who build in the floodplain is questionable and should be reexamined.

RIVER CORRIDOR MANAGEMENT

— The rivers of the UMRS attract many diverse and often conflicting uses along their shorelines and corridors. To ensure that the UMRS is able in the future to sustain the variety of uses that it supports today it is essential that increased protection be given to the River's natural biological and physical resources.

— A shoreline planning and management program should be established for the river corridors of the UMRS. The geographic scope of the corridor plans should cover the waters of the UMRS and all adjacent shorelands (including the blufflands) significantly influenced by their proximity to these waters.

— The establishment, implementation and enforcement of river corridor management plans should be a carefully coordinated effort on the part of the federal, state and local governments of the UMRS with active public participation.

— To protect the national interest in these resources and to provide the necessary degree of uniformity, Congress should require that the corridor plans meet certain minimum standards:

- effective protection of valuable wetlands and fish and wildlife areas
- control of development to minimize loss of life and property in floodplains and erosion-prone areas and to protect natural protective features such as the flood water storage capacity of wetlands
- direction of floodplain dependent development (such as industrial plants using the river transportation network) to industrial park areas and away from ecologically vulnerable areas
- provisions for carefully planned public access to and along the shoreline consistent with protection of the shoreline resources
- protection of scenic blufflands
- orderly development of water oriented recreational facilities in a manner that minimizes the impact on the fish and wildlife resource of the backwater areas, and in such a manner that provision of recreational services and facilities by the private sector is encouraged.

STATEMENT OF STATE SENATOR JAMES ULLAND, ON GREAT LAKES PORT DEVELOPMENT AND COST RECOVERY

Mr. Chairman and members of the subcommittee: I am Minnesota State Senator James Ulland, Chairman of the Minnesota Great Lakes Commission. The Minnesota Great Lakes Commission is primarily a legislative body consisting of five members: two members of the State Senate appointed by the Committee on Committees, two members of the State House of Representatives appointed by the Speaker of the House, and one member of the general public appointed by the Governor.

The Minnesota Great Lakes Commission has oversight responsibility for State involvement in national, regional and local policy and program initiatives impacting the Great Lakes. The Minnesota Great Lakes Commission supports the protection of the Great Lakes as a valuable environmental resource, and the development of the Great Lakes as an important economic resource. The Minnesota Great Lakes Commission also serves as the State delegation affiliated with the eight-State Great Lakes Commission established by the Great Lakes Basin Compact. I wish to emphasize that my comments today are on behalf of only the Minnesota Great Lakes Commission, and may not totally coincide with the official positions of the eight-State Great Lakes Commission.

It is a pleasure to appear here today to address urgently needed reforms in national water policy, particularly in respect to Great Lakes port development and cost recovery proposals. I understand that this Subcommittee is looking at total water policy reform including proposals to fully recover the costs of dredging through the imposition of user fees. The Minnesota Great Lakes Commission raise serious and substantial concerns regarding its actual implementation. If not properly considered and designed, cost recovery could economically destroy the Great Lakes as an important and efficient waterway transportation system.

Any cost recovery system must be legally and administratively practical. This is a very simple and reasonable criteria, yet serious problems result when it is applied to the proposal for the collection of fees by appropriate non-Federal public interests to cover dredging and other port improvement costs. In fact, the imposition of fees by non-Federal public agencies may not be a legally or administratively workable system. Since admiralty jurisdiction rests at the Federal level, the States and port authorities cannot place a lien on recalcitrant foreign vessels for non-payment of user fees. Also, some compact agreements and port authority enabling legislation currently prohibit the States and ports from setting up a system of fees or tolls. If cost recovery—not cost transfer--is the objective, then this Subcommittee should consider collections methods such as a fuel tax, tonnage tax or lockage charge at Federal locks. These measures would require essentially a Federally imposed and administered cost recovery system, but I hardly need to remind you of the historic and Constitutional role of the Federal government in facilitating maritime commerce.

Any cost recovery system must also be equitable. Although this again is a very reasonable criteria, the Great Lakes-St. Lawrence Seaway unfortunately does not receive such fair treatment. Since 1959 over $62 million has been collected through tolls to cover all administrative, maintenance and operation costs of the Great Lakes-St. Lawrence Seaway. None of the other three Seacoasts are faced with such economic discrimination, and the Great Lakes-St. Lawrence Seaway debt should be immediately lifted by Congress. Perhaps the group which suffers the most by the burden of the Seaway debt is the Midwest farmer. The current Seaway debt has significantly affected the cost of shipping agricultural products and poses a serious threat to the economic vitality of the Midwest's agricultural community. However, if the Seaway debt is not removed prior to imposition of cost recovery measures, we will have a classic case of Federal intervention and discrimination causing the collapse of a major industry.

Although cost recovery is an important issue to be considered as you initiate water policy reform, I wish to emphasize that improvements in the project development process are equally important and deserve concurrent action. I need not go into great detail regarding the unreasonable length of time it currently takes to propose, study and complete waterway projects. I understand that you are considering legislation which at least partially attempt to address these problems. However, I would like to cite two projects which are very important to Minnesota and serve as further examples of needless and costly process delay. The first example is the Upper Channel Improvement Project for the Duluth-Superior harbor. This project would deepen an up-river stretch of our harbor from 23 feet to 27 feet. After 13 years of work we are currently involved in a Corps of Engineers feasibility study to determine a suitable disposal site and if we don't encounter any major obstacles the project could be completed by 1987 or 1988 at a cost of between $12 million and $14 million. Twenty years for a relatively simple project certainly indicates the need for reform.

The second example is a much more comprehensive project and I fear, under the current system, if we will ever accomplish our objective. I speak of the need for Great Lakes-St. Lawrence Seaway Navigation Season Extension. We have the capability and technology to implement season extension now. We have exhaustively studied and are aware of the potential environmental problems associated with season extension. We are prepared to take the necessary environmental protective measures since we have no intention of ruining one of our most precious natural resources—the Great Lakes. Yet, after 10 years of study, the Board of Engineers for Rivers and Harbors just last March issued a report calling for an additional, multiyear environmental assessment even though the Board stated it was not convinced that winter navigation would impose high or widespread environmental risk as some critics have claimed. This appears both ludicrous and very counter-productive. The Minnesota Great Lakes Commission strongly supports a flexible season extension program based on weather, ice conditions, national economic needs and market demands, with due consideration of environmental factors.

Improvements in the development process must focus on meaningful reforms regarding project authorizations and project procedures, particularly as conducted by the Corps of Engineers. Congress should seriously consider "automatic authorization" for various projects involving Congressional review of recommended projects with favorably completed feasibility studies are stalled without good cause except for lack of simple authorization.

Corps of Engineers procedures should be improved and simplified in order to allow the Corps to complete studies and planning reports in a more reasonable time period. Also, Congress should give serious consideration to the five year dredging program and the programmatic environmental impact statement as presently under consideration by the House Merchant Marine and Fisheries Committee.

Mr. Chairman, the task before you is enormous. The development and enactment of major waterway policy reform must be considered one of our highest priorities since it directly impacts the economic health of the Nation. Although there is a need for urgent action, such action must first be fully considered and reviewed by the interests involved. I urge you to establish a work group consisting of Congressional, Administration, State legislative and port authority representatives to develop reform recommendations for full Congressional consideration early next year.

Again, I appreciate the opportunity to testify today, and express my thanks to you for conducting this field hearing in St. Paul.

STATEMENT BY

DAVIS HELBERG, EXECUTIVE DIRECTOR

SEAWAY PORT AUTHORITY OF DULUTH

1200 PORT TERMINAL DRIVE

DULUTH, MINNESOTA 55806

MY NAME IS DAVIS HELBERG AND I AM EXECUTIVE DIRECTOR OF THE SEAWAY PORT AUTHORITY OF DULUTH, DULUTH, MINNESOTA. WITH ME ARE MINNESOTA STATE SENATOR JAMES ULLAND, CHAIRMAN OF THE MINNESOTA DELEGATION TO THE GREAT LAKES COMMISSION, AND ROBERT J. BAKER, VICE PRESIDENT OF GUTHRIE-HUBNER, INC., VESSEL AGENTS AND FREIGHT FORWARDERS IN THE PORT OF DULUTH-SUPERIOR, AND AN OFFICER OF THE DULUTH-SUPERIOR MARINE ASSOCIATION.

THANK YOU FOR THE OPPORTUNITY TO COMMENT ON A SUBJECT WHICH THE AMERICAN ASSOCIATION OF PORT AUTHORITIES HAS DESCRIBED AS "THE MOST IMPORTANT ISSUE EVER TO CONFRONT THE U.S. PORT INDUSTRY."

WE HAVE REVIEWED S. 809 AND S. 810, THE ADMINISTRATION'S PROPOSALS TO FULLY RECOVER FEDERAL COSTS FOR MAINTAINING THE NATION'S HARBORS AND WATERWAYS. WHILE WE ARE OPPOSED TO S. 810 AS A MATTER OF PRINCIPLE, THERE ARE OTHER FAR MORE QUALIFIED---AND MORE DIRECTLY AFFECTED---WHOM WE ARE CERTAIN WILL BE ADDRESSING THAT PROPOSAL TODAY. WE WOULD HOPE TO CONCENTRATE INSTEAD ON S. 809.

WE ALSO KNOW THAT IN PREVIOUS HEARINGS BEFORE THIS COMMITTEE REGARDING S. 809, REAMS OF TESTIMONY HAVE BEEN SUBMITTED WHICH HAVE DWELT ON THE HISTORIC ROLE OF THE FEDERAL GOVERNMENT IN KEEPING THE NATION'S WATERWAYS FREE AND OPEN TO COMMERCIAL NAVIGATION. ONE SALIENT POINT IS WORTH RESTATING, HOWEVER, FOR EMPHASIS:

BILLIONS OF DOLLARS HAVE BEEN INVESTED BY BOTH THE PUBLIC AND PRIVATE SECTORS OF THE MARITIME INDUSTRY IN THE GOOD FAITH BELIEF AND UNDERSTANDING THAT THE SYSTEM ESTABLISHED IN THE EARLY 1800's WOULD CONTINUE AD INFINITUM.

PERHAPS SUCH GOOD FAITH WAS NAIVE: PERHAPS THE BUILDERS OF THIS NATION'S DOCKS AND WAREHOUSES AND ELEVATORS AND BREAKWATERS SHOULD HAVE ANTICIPATED THAT

SOMEDAY THE SYSTEM WOULD BE CHANGED. BUT IT'S FAIRLY SAFE TO SAY THAT THEY DID NOT. THEY WERE, AFTER ALL, BUILDING AMERICA'S INTERNATIONAL AND DOMESTIC WATERBORNE TRADE ON GOOD FAITH.

IF ANY CHANGE WAS CONTEMPLATED, IT WAS ON THE ASSUMPTION THAT SUCH CHANGE WOULD BE GRADUAL, THAT CAUTIONARY FLAGS WOULD BE RAISED IN ORDER TO GIVE THE MARITIME INDUSTRY TIME TO ADJUST. BUT S. 809 CAME OUT OF THE FIGURATIVE BLUE, SUDDENLY AND UNEXPECTEDLY PROPOSING LEGISLATION THAT WOULD FOIST HEAVY BURNDENS ON AN INDUSTRY ALREADY SADDLED WITH OPPRESSIVE GOVERNMENT REGULATIONS AND LITTLE UNDERSTOOD OUTSIDE ITS OWN SOCIETY.

BE ASSURED THAT GREAT LAKES PORTS ARE MORE THAN SLIGHTLY FAMILIAR WITH THE EFFECTS OF USER FEES. WHEN THE ST. LAWRENCE SEAWAY OPENED IN 1959, IT DREW THE DUBIOUS DISTINCTION OF BECOMING THE NATION'S FIRST (AND, SO FAR, ONLY) WATERWAY REQUIRED TO REPAY THE FEDERAL TREASURY FOR ALL OF ITS CONSTRUCTION, ADMINISTRATION, OPERATIONS AND MAINTENANCE COSTS.

SEAWAY TOLLS (USER FEES) WERE ESTABLISHED IN 1959 AT A BASIC RATE OF $0.40 PER SHORT TON FOR BULK CARGO AND $0.90 PER SHORT TON FOR GENERAL CARGO, PLUS $0.04 PER GROSS REGISTERED TON OF THE VESSEL. EXCEPT FOR LOCKAGE CHARGES ADDED IN THE EARLY 1970's AT THE CANADIAN-OWNED WELLAND CANAL, THE BASIC RATES REMAINED UNCHANGED FOR 18 YEARS. THEN, IN 1978, CAME A THREE-YEAR ESCALATOR WHICH, IN EFFECT, MORE THAN DOUBLED THE TOLLS (SEE EXHIBIT A).

THE MAJOR INCREASE WAS APPLIED TO HIGHLY COST-SENSTIVE GENERAL CARGO. FROM A TOLL OF ROUGHLY $0.99 (THE SEAWAY CONVERTED TO THE METRIC SYSTEM) PER METRIC TON IN 1977, THE TOLL ROSE TO $2.15 PER METRIC TON BY 1980.

ALTHOUGH OTHER FACTORS ALSO MUST BE CONSIDERED, THE SHARP INCREASE UNQUESTIONABLY WAS A CONTRIBUTOR TO THE WIDELY-KNOWN DECREASE IN GENERAL CARGO TRAFFIC AT GREAT LAKES PORTS.

AND NOW, WE ARE ADVISED, FURTHER INCREASES WILL BE NECESSARY COMMENCING IN OUR 1982 NAVIGATION SEASON.

THE GIST OF THE FOREGOING FEW PARAGRAPHS IS THAT---FROM AN ADMITTEDLY PAROCHIAL VIEWPOINT---WE IN THE GREAT LAKES SIMPLY CANNOT TOLERATE ANOTHER LAYER OF USER FEES ATOP THOSE WE ALREADY HAVE.

EACH PORT IN ALL FOUR SEACOASTS CONSIDERS ITSELF UNIQUE FOR ONE REASON OR ANOTHER. THERE ARE, HOWEVER, SPECIAL ASPECTS OF THE GREAT LAKES WHICH WE BELIEVE HAVE BEEN TOTALLY OVERLOOKED IN THE ADMINISTRATION'S COST-RECOVERY SCHEME.

THESE SPECIAL FEATURES ARE SOMEWHAT ARBITRARILY REDUCED TO FOUR CATEGORIES:

1. THE PRESENT SYSTEM OF ST. LAWRENCE SEAWAY TOLLS (USER FEES) ALREADY IN PLACE, AS DESCRIBED EARLIER.
2. THE GREAT LAKES/ST. LAWRENCE SYSTEM REPRESENTS OUR ONLY SEACOAST WHICH SHARES AN INTERNATIONAL WATERWAY WITH ANOTHER NATION THAT HAS A STRONG VOICE IN ESTABLISHING CONDITIONS AND PROCEDURES ALONG THAT WATERWAY---THE OTHER COASTAL AREAS DON'T "SHARE" THEIR CHANNELS.
3. NO OTHER DEEP-DRAFT U.S. WATERWAY MOVES NEARLY THE AMOUNT OF DOMESTIC CARGO AS DOES THE GREAT LAKES AND CONNECTING CHANNELS. ORE, COAL, GRAIN, AND OTHER BULK CARGOES CONSTITUTE THE LION'S SHARE OF COMMERCE ON THE LAKES. USING THE PORT OF DULUTH-SUPERIOR AS JUST ONE EXAMPLE, SEE EXHIBIT B.
4. HUNDREDS OF CANADIAN SHIPS CARRYING MILLIONS OF TONS OF CANADIAN CARGO PLY THE U.S. SECTIONS OF THE GREAT LAKES ANNUALLY. WITHOUT A RECIPROCAL AGREEMENT, HOW WOULD U.S. USER FEES BE APPLIED AND COLLECTED AT CONNECTING CHANNELS?

THERE IS ANOTHER FACTOR PERTAINING TO THE GREAT LAKES WHICH DIFFERS FROM THE OTHER COASTAL RANGES. MANY---IF NOT MOST OF---THE PORT AUTHORITIES AT TIDEWATER PORTS OWN LARGE TRACTS OF WATERFRONT PROPERTY AND, AS A CONSEQUENCE, COLLECT LEASE, RENTAL AND/OR WHARFAGE CHARGES FROM THEIR TENANTS. THE MAJORITY OF PORT AUTHORITIES ON THE GREAT LAKES, HOWEVER, WERE ESTABLISHED IN CONJUNCTION

WITH OR AFTER THE OPENING OF THE ST. LAWRENCE SEAWAY. AS A RESULT, THEY DO NOT ENJOY THE RELATIVE LUXURY OF HAVING AN IN-PLACE SYSTEM OF IMPOSING AND COLLECTING FEES.

THIS DIFFERENCE IS BROUGHT TO MIND BY A COMMENT BY DAVID A. STOCKMAN, DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET, AT A JULY 16, 1981, HEARING BEFORE THIS COMMITTEE IN WASHINGTON. IN HIS WRITTEN TESTIMONY (PAGE 10), MR. STOCKMAN SAYS THE FOLLOWING:

"I BELIEVE USER CHARGES FOR PORTS SHOULD NOT BE COLLECTED BY A FEDERAL AGENCY, BUT BY WHATEVER ENTITY WANTS...DREDGING SERVICE. NON-FEDERAL ADMINISTRATION OF USER CHARGES WOULD LET THE SAME PEOPLE WHO ALREADY EASILY AND FLEXIBLY COLLECT FEES TO COVER THE LANDSIDE, DREDGE, DISPOSAL, AND CONNECTING CHANNEL COSTS TO CONTINUE IN CHARGE OF THEIR OWN HOUSES."

WE URGE THAT THERE IS NOTHING "EASILY AND FLEXIBLY" COLLECTED BY NON-FEDERAL AGENCIES WHICH HAVE NEVER BEFORE COLLECTED A RED CENT IN FEES FROM PORT USERS. MOREOVER, TWO GREAT LAKES PORT ENTITIES (ONE A MUNICIPAL OPERATION, THE OTHER A STATE) ATTEMPTED TO IMPOSE USER FEES IN RECENT YEARS AND BOTH ARE DEEPLY EMBROILED IN LITIGATION BECAUSE OF SUITS BROUGHT BY MAJOR PORT USERS.

ANOTHER ADMINISTRATION SPOKESMAN RECENTLY WAS QUOTED ANONYMOUSLY AS SAYING THAT "MAYBE THEY (THE PORTS WHICH WOULD BE INJURED BY USER FEES) SHOULDN'T HAVE BEEN PORTS IN THE FIRST PLACE." INDEED! WE (DULUTH, MINN., AND SUPERIOR, WIS.) WOULD NOT EXIST AS COMMUNITIES WERE IT NOT FOR THE FACT THAT WE SHARE ONE OF THE NATION'S GREAT NATURAL PORTS.

WE (DULUTH AND SUPERIOR) MAY NOT BE AMONG THE LARGER "METROPOLITAN" AREAS OF THE COUNTRY (APPROXIMATE POPULATION: 150,000). BUT DESPITE OUR LIMITED POPULATION---AND DESPITE BEING LIMITED TO A NINE-MONTH NAVIGATION SEASON---WE ANNUALLY RANK AMONG THE TOP 15 PORTS IN THE UNITED STATES IN TOTAL WATERBORNE COMMERCE, AHEAD OF SUCH PORTS AS CHICAGO, LOS ANGELES, NORFOLK, PORTLAND, BOSTON AND DETROIT.

WE HAVE ACHIEVED THIS STATUS DESPITE BEING LOCATED 1,157 NAUTICAL MILES FROM AND 602 FEET ABOVE SEA LEVEL. TO REACH US, OCEAN-GOING VESSELS MUST TRAVEL AND CLIMB A ROUTE THAT TRAVERSES FOUR CONNECTING WATERWAYS AND 16 LOCKS. CONSIDER THEN, IF YOU WILL, THE POTENTIAL IMPACT OF USER FEES BEING APPLIED BY VARIOUS "NON-FEDERAL PUBLIC ENTITIES" (AS S. 809 PROPOSES) ALONG THIS WATERWAY NETWORK.

IN SUMMARY, THE PORT OF DULUTH'S POSITION IS THAT THERE SHOULD BE NO CHANGE IN THE PRESENT SYSTEM WITHOUT CAREFUL AND THOROUGH EXAMINATION OF THE RAMIFICATIONS---WE HAVE YET TO SEE ANY ADMINISTRATION ANALYSIS OF WHERE THIS 180-DEGREE TURN WILL TAKE US.

SECOND, IF THERE MUST BE A CHANGE OF ANY KIND, SPECIAL CONSIDERATION MUST BE GIVEN TO THE GREAT LAKES/ST. LAWRENCE SEAWAY SYSTEM AND ITS UNIQUE CHARACTERISTICS MENTIONED EARLIER.

THIRD, WE RECOGNIZE THAT THE ADMINISTRATION'S INTENT IS NOBLE IN VIEW OF THE NATION'S CURRENT ECONOMIC PLIGHT. BUT WE RESPECTFULLY SUBMIT THAT S. 809 IN ITS PRESENT FORM IS ILL-CONCEIVED, WOULD BE TERRIBLY DISRUPTIVE TO THE FLOW OF BOTH INTERNATIONAL AND DOMESTIC COMMERCE AND, ALL CONSIDERED, WOULD BE HIGHLY INJURIOUS TO THE GREAT LAKES.

AND, FINALLY, IF A USER FEE SYSTEM IS INESCAPABLE, IT MUST BE:

- UNIFORM IN ITS APPLICATION, AT LEAST FOR PORTS WITH DEPTHS OF 45 FEET OR LESS, SO THAT IT DOES NOT DISRUPT OR DISTORT THE PRESENT FLOW OF CARGO;
- ADMINISTERED BY THE FEDERAL GOVENMENT, INCLUDING THE COLLECTION OF USER FEES;
- DESIGNED SO THAT ALL PREVIOUS CONSTRUCTION COSTS ARE "GRANDFATHERED" INTO THE PROGRAM.

EXHIBIT A

SAINT LAWRENCE SEAWAY JOINT TARIFF OF TOLLS, 1978-81

CARGO TOLLS/ COMMERCIAL VESSEL CHARGES	Per Metric Ton (1,000 kilograms or 2,204.62 lbs.)		
	1978	1979	1980'81
Combined Sections (full Transit of Montreal-Lake Ontario (Mo-Lo) & Welland Canal Sections)			
Bulk	$ .70	$ .86	$ .99
Containers	.99	.99	.99
Goverment Aid Cargoes	.61	.65	.72
Grain	.61	.65	.72
General	1.55	1.88	2.15
Vessel charge, per gross registered ton	.14	.14	.14
Montreal-Lake Ontario Section (full transit)			
Bulk	.50	.62	.68
Containers	.68	.68	.68
Goverment Aid Cargoes	.41	.41	.41
Grain	.41	.41	.41
General	1.27	1.49	1.65
Vessel charge, per gross registered ton	.07	.07	.07
Welland Canal Section (full transit)			
Bulk	.20	.24	.31
Containers	.31	.31	.31
Goverment Aid Cargoes	.20	.24	.31
Grain	.20	.24	.31
General	.28	.39	.50
Vessel charge, per gross registered ton	.07	.07	.07

OTHER CHARGES

1. Partial transit by commercial vessel (1978-81):
    Mo-Lo section — 15% per lock of applicable toll
    Welland Canal section — 13% per lock of applicable toll

	1978-81	
	Mo-Lo	Welland
2. Per paid-fare passenger	$5.25	$6.00
3. Pleasure craft (minimum charge)	4.00/lock	4.00/lock
4. Other vessels (minimum charge)	8.00/lock	8.00/lock

Source: Saint Lawrence Seaway
Developement Corporation, 3/78

April 2, 1980

Seaway Tolls Summary

	Welland Canal	Montreal Lake Ontario
	$	$
1959 - Per net ton of:		
Bulk	.02	.40
General	.05	.90
Vessel GRT	.02	.04
Revenue split: U.S. - 29%/Canada - 71%		
1962 -	suspended effective 7/18/62	as above
1967 - thru 1977	per lock fee of $20 (maximum one way $160) to increase $20 annually through 1971 at $100 per lock (maximum one way $800)	as above
Revenue split: U.S. - 27%/Canada - 73%		

EXHIBIT B

SEAWAY PORT AUTHORITY OF DULUTH

PORT OF DULUTH-SUPERIOR

MARINE TONNAGE REPORT NO. 9, DECEMBER & FINAL, 1980*

SUMMARY

(In Metric Tons of 2,204.6 lbs.)

	YEAR TO DATE 1980	YEAR TO DATE 1979
TOTAL WATERBORNE COMMERCE:	37,853,163	43,813,880
International Trade		
Imports:	411,079	631,335
Exports:	8,792,540	9,311,310
Total International:	9,203,619	9,942,645
Domestic Trade		
Receipts:	1,436,154	1,830,620
Shipments:	27,213,390	32,040,615
Total Domestic:	28,649,544	33,871,235
TOTAL NUMBER OF VESSELS:	1,829	2,164

* Includes shipments through close of season Jan. 3, 1981

INTERNATIONAL TRADE

	DECEMBER AND FINAL		YEAR TO DATE	
	1980	1979	1980	1979
TRAFFIC & COMMODITY				
Overseas Imports				
Fertilizer, bulk				4,525
Gen. Cargo, Ex. Steel	4,606	4,980	11,841	21,101
General Cargo, Steel				39,267
Limestone & L. Products				34,447
Total Overseas Imports	4,606	4,980	11,841	99,340
Overseas Exports				
General Cargo			17.875	32,913
Grain	159,574	329,732	2,639,864	3,624,509
Grain By-Products	146,891	181,027	1,300,786	1,323,056
Liquid Cargoes				9,720
Misc. Bulk			19,888	74,552
Total Overseas Exports	306,465	510,759	3,978,413	5,064,750
TOTAL OVERSEAS	311,071	515,739	3,990,254	5,164,090
Canadian Imports				
Grain		1,718	8,894	11,984
Limestone & L. Products		12,874	36,199	152,082
Lumber			347	301
Newsprint	6,497	5,134	133,843	106,645
Salt		10,521	122,179	161,453
Steel				1,173
Woodpulp	3,363	3,912	97,776	98,357
Total Canadian Imports	9.860	34,159	399,238	531,995
Canadian Exports				
Grain	313,864	215,702	2,779,893	1,728,990
Grain By-Products		13,894		13,894
Iron Ore & Concentrates	191,938	213,827	1,921,348	2,332,383
Misc. Bulk			112,886	171,293
Total Canadian Exports	505,802	443,423	4,814,127	4,246,560
TOTAL CANADIAN	515,662	477,582	5,213,365	4,778,555

DOMESTIC TRADE

(In Metric Tons of 2,204.6 lbs.)

	DECEMBER		YEAR TO DATE	
	1980	1979	1980	1979
Domestic Receipts				
Calcium Chloride, Liquid			3,830	3,856
Coal or Coke		19,157	265,177	405,559
Limestone & L. Products	31,979	37,199	1,026,026	1,259,946
Petroleum Products	7,671	7,462	141,121	154,001
Slag				7,258
Steel				
Total Domestic Receipts	39,650	63,817	1,436,154	1,830,620
Domestic Shipments				
Coal or Coke	164,998	214,205	3,706,823	3,575,890
Grains	97,128	146,149	1,419,431	1,275,424
Iron Ore & Concentrates	1,237,382	1,971,827	21,978,404	27,087,736
Petroleum Products			68,002	101,566
Potash			40,730	
Total Domestic Shipments	1,499,508	2,332,181	27,213,390	32,040,615
TOTAL ALL DOMESTIC	1,539,158	2,395,998	28,649,544	33,871,235
GRAND TOTAL ALL TRAFFIC:	2,365,891	3,389,321	37,853,163	43,813,880

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OCEAN VESSEL ARRIVALS:	12	27	272	370
LAKE VESSEL ARRIVALS:	101	109	1,557	1,794
TOTAL VESSEL ARRIVALS:	113	136	1,829	2,164

26 Countries represented to date in 1980 in ocean vessel traffic; Greece - 81, Yugoslavia-34, Liberia-33, United Kingdom-26, Spain-18, Belgium-10, Italy-9, Panama-9, France-7, Finland-6, Turkey-6, India-5, Netherlands-5, Poland-4, Denmark-3, Singapore-3, Bulgaria-2, Cyprus-2, Germany-2, Brazil-1, Canada-1, Japan-1, Morocco-1, Peru-1, Taiwan-1, United States-1.

SOURCES: American Iron Ore Association, U.S. Army Corps of Engineers, Minneapolis Grain Exchange, Seaway Port Authority of Duluth, and Terminal Operators of Duluth-Superior.

STATEMENT ON BEHALF OF

UPPER MISSISSIPPI WATERWAY ASSOCIATION
P. O. BOX 1116
BURNSVILLE, MINNESOTA 55337

BY

ERV A. TIMM
EXECUTIVE VICE PRESIDENT

My name is Erv A. Timm. I am the Executive Vice President of the Upper Mississippi Waterway Association. My appearance today is on behalf of the Association and by authorization of its Executive Committee.

The Association was incorporated in 1932 and is dedicated to the furtherance of navigation and sound water resource management on the Upper Mississippi River and its tributaries. It has a broad base of membership in the states in the Upper Mississippi River Basin drawn from large agricultural and energy oriented firms, many of whom have wholly owned subsidiary or affiliated barge and towing companies utilized for movement of petroleum products or fertilizer upbound and for the movement of agricultural products downbound to world markets.

Being 400 miles off the east-west flow of commerce, the Upper Mississippi navigational channel has been a major factor in maintaining the competitiveness of our agricultural products in world markets. Our member firms utilize all modes of transportation and most would be considered large shippers via rail or motor carrier as well as by river. River transportation has become an integral part of their merchandising or marketing practices. It would be erroneous to conclude that rate differentials between rail and water are the determining factor as to the volume of movement in commercial navigation. It is but one of many factors and may be transcended by availability of transport to move product.

Others will testify as to the impacts of waterway user charges on the movement of agricultural products and my testimony on that subject will be brief. The main thrust of my comments will be to cover the adverse impacts that certain Federal and state policies is creating

Since 25 of the 27 locks on the Mississippi River are upbound from Alton, Illinois, where the new Locks and Dam 26 is under construction, and in consideration of long distances to be traversed between the Gulf and the head of navigation at Minneapolis, Minnesota, whether we are considering waterway fuel taxes, lockage fees, segment fees, tolls or charges based on cargo capacity, it is quite probable that the greatest impact will be felt on the Upper Midwest economy, and our members are deeply appreciative that you are concerned as evidenced by having scheduled this hearing in the Twin Cities.

The Minnesota Department of Transportation in recognition that Minnesota would be a heavily impacted area undertook its own study of the impact of waterway fuel taxes on the movement of Minnesota's agricultural products to domestic and international markets and on its energy needs (coal and petroleum products) which has been the subject of earlier testimony and has been made a part of the record. Our Association has also undertaken its own study, and while not yet fully completed, has raised our most serious concerns. We are, of course, awaiting the results of the National Waterway User Charges Study mandated by P.L. 95-502.

As you know, P. L. 95-502 also imposed a 4¢ per gallon fuel tax which became effective on October 1, 1980 escalating to 10¢ per gallon by 1985. Our studies show that each 1 cent per gallon tax on diesel towboat fuel increases the cost of transportation of grain from Minneapolis to New Orleans by approximately 10 cents per ton or 3/10 of a cent per bushel. Based on an estimated 700 million gallons of diesel fuel to be consumed in 1985 by commercial navigation operations on the inland waterways, existing law (10 cents per gallon) would produce $70 million dollars of revenue.

The 15 cents per gallon in the Administration's proposal would generate $105 million dollars of revenue and which equates to an additional 4½ cents per bushel cost to the farmer for getting his product to market, not to mention the increased costs for fertilizer. Obviously, any consideration of "other unspecified license fees, segment fees, lockage fees, tolls, and charges based on cargo capacity" also in the Administration's proposal would give the farmer a "double whammy".

Generally, the industry has long since agreed to paying its fair share of the costs of maintaining the navigational channel, however, we are deeply concerned that too little concern has been given to (1) the overall cost and (2) the fair and equitable allocation of costs to the wide range of beneficiaries.

The current U. S. Army Corps of Engineers operations and maintenance cost is $235 million dollars and "full cost recovery" has become an over-simplified computation of forecasting consumption of diesel towboat fuel and thus arriving at a waterway fuel tax that will generate sufficient revenues to offset the Corps O&M budget.

The Administration has rightfully undertaken a cost-conserving budget-cutting approach to good government. We do not, however, feel that the Corps O&M budget should escape the same scrutiny. Obviously, it would be sacrilegious for commercial navigation interests to recommen. a reduction in the Corps budget for channel maintenance. We can, however, simultaneously support adequate funding for channel maintenance while advocating stringent cost-justification for the Corps O&M budget.

Since early 1970 various Federal laws (Clean Water Act, Endangered Species Act, etc.) and state regulations have imposed numerous restrictions on the Corps traditional channel maintenance dredging procedures and it was often easier for the Corps to acquiesce to the demands of the Environmental Protection Agency, U. S. Fish and Wildlife Service and State Departments of Transportation of Conservation Commissions in dredging and dredge disposal activities, few of which were cost-justified, then to seek clarification of conflicts in statutes and regulations.

Until the Administration advanced its concept for full cost recovery, the Corps O&M budget was strictly a matter between the Corps and the Congress and the concerns of commercial navigation interests about lack of cost justification were given short shrift. However, if the Congress is to ask commercial navigation interests under the full cost recovery concept to pay for the additional cost of all of the environmental projects that have crept into the Corps current O&M budget, then it is being asked to retroactively foot the bill without ever having had a voice in the decision-making process.

In my present position with the Association since 1980 and as General Manager of the Saint Paul Area Chamber of Commerce since 1959, I have participated in the GREAT studies and the Upper Mississippi River Basin Commission Master Plan Study at the work team level. I am one of the four public members (economic) serving on the Great River Study Committee of the UMRBC.

The attached graph (Exhibit No. 1) is a comparison of dredging quantities and costs for the Corps St. Paul District. It reflects a rather constant annual average 12 percent increase in costs between 1970 and 1974 for the cost of dredging, however, since 1974 the Corps O&M budget has dramatically increased. An extension of the same annual 12 percent increase (dashed line) indicates just how much additional cost has crept into the Corps channel maintenance provram over and above historical dredging practices. Based on the same annual 12 percent increase, the traditional cost of dredging in 1981 would have approximated $1.44 per cubic yard. Instead, the actual cost was $9.50 per cubic yard. Hence, the Corps O&M costs have increased by more than six time over the traditional cost of dredging since 1974, largely as a result of environmental projects.

If Congress is merely to impose a waterway fuel tax in amount necessary to fund the Corps appetite without the restraints of cost-justification for undertaking environmental quality projects then interstate shippers are being taxed to fund state projects through which their shipments pass. Should a North Dakota farmer be taxed for a Corps $300,000 study to determine the existing range of the Higgin's Eye Pearly Mussel (Lampsilis Higginsi).

What brought all of this about? It really started in 1973 when the Wisconsin Department of Natural Resources challenged the Corps historial over-depth dredging practicies and the placement of dredged materials on Wisconsin lands and nearly brought commercial navigation to a standstill. This case was not finally decided until July 14, 1981, however, it spawned numerous environmentally oriented activities in the interim, and environmentalists found great comfort and solace in the Great River Study authorized by Congress in the Water Resources Development Act of 1976 (P.L. 94-587) at an estimated cost of $9.1 million dollars.

The Commercial Navigation Work Team of GREAT I (head of navigation to Guttenberg, Iowa) vigorously opposed the GREAT I Channel

Maintenance Plan for such valid reasons as

(1) reduced hydraulic dredging capability (higher costs for mechanical dredging),

(2) derrogation of marine safety by reason of reduced depth dredging (higher costs for more requent dredging and increased imminent closure situations), and

(3) lack of cost justification (for use of less efficient mechanical dredging equipment and for the use of dredged disposal sites outside of the high water line frequently necessitating rehandling of dredged materials)

As an illustration, the Wisconsin DNR still contends that a 9 foot dredge cut is all that is needed to maintain the 9 foot navigation project authorized by the Congress.

The U. S. Coast Guard/U. S. Department of Transportation has registered serious concerns throughout the evolution of the GREAT I Channel Maintenance Plan, and continue to do so.

Nonetheless, the St. Paul District of the Corps in its "Draft Implementation Report for the GREAT I Study, November, 1980" proposed three alternatives for implementation of GREAT I recommendations, including the GREAT I Channel Maintenance Plan, as follows:

(1) Basic Program - Continuation of operation and maintenance of the nine foot navigation project and to comply and incorporate as many of the GREAT I recommendations as current funding levels and scheduling will allow.

Editorial Note: The only restraint appears to be Congressional appropriations.

(2) First Priority Program. Implementation of the higher recommendations contingent upon justification and receiving necessary

funding increaes, which would increase annual O&M costs by about $3 million.

(3) Early Implementation of Great I Program. Full implementation of all GREAT I recommendations. This would increase annual operations and maintenance costs by about $9 million.

In view of the fact that the Corps dredging costs have increased more than six fold since 1974 we can assume that the "basic program" of "continuation of operation and maintenance of the nine foot navigation project and to comply and incorporate as many of the GREAT I recommendations as current funding levels and scheduling will allow" has been going on for some time.

However, what is the impact of the proposed second step? Our analysis shows a net of 305 acres of select EQ sites. A simple calculation of $3 million dollars increase in the Corps St. Paul District O&M budget for the 40 year projection is $120 million dollars or a cost of $393,442 per acre to protect the 305 acres. We believe this illustrates our concern for lack of cost-justification.

After extensive deliberations, the GREAT I Channel Maintenance Plan was not included in the Upper Mississippi River Basin Commission Comprehensive Coordinated Joint Plan (CCJP) which is now out for 45 day review. Since it requires consensus voting, and the U. S. Coast Guard/U. S. Department of Transportation has indicated it will not give its approval account marine safety concerns, it is unlikely that the GREAT I Channel Maintenance Plan will be approved. The Water Resources Council and 6 Basin Commissions, including the Upper Mississippi River Basin Commission were zero-funded for FY'82, however it is also anticipated that Secretary of Interior James Watts will include carry-over FY'81 CCJP funds in his recission efforts, hence it is unlikely that funds will be available to implement the CCJP activities on a regional basis.

We have been too complacent in assuming that the GREAT I recommendations would have to go to Congress for approval before they could be implemented as the Great River Study authorization provides. That is not the case.

While commercial navigation interests are deeply concerned about the impact of increased waterway fuel taxes for full cost recovery of the Corps O&M budget, insufficient concern has been shown on controlling the skyrocketing costs of the Corps O&M budget which results from discretionary implemention of environmental programs even before Congress has given approval to the GREAT I recommendations. So long as the Congress approved the Corps O&M budget, it may have been easier to simply acquiesce to state efforts to implement environmental programs that were not cost-justified or to simply contend they had to comply with the law.

How was it done? In an exchange of correspondence between the Wisconsin DNR and the St. Paul District Engineer on April 15th responding to an inquiry relative to emergency and imminent closure dredging definitions on the Upper Mississippi River it is stated:

"it is critical that there be no deviation from the GREAT definition of emergency and imminent closure dredging."

"the definitions taken from the GREAT I report are the definitions that the State of Wisconsin will be applying to the Corps dredging commencing with the 1981 dredging season."

Under both emergency dredging and imminent closure the selection procedure of a placement site is largely identical

a) GREAT approved sites in the Channel Maintenance Plan

b) GREAT approved temporary placement sites

c) other appropriate agency approved temporary sites with removal to Channel Maintenance Plan approved sites

It appears that this "exchange of letters" replaced the Wisconsin statutory "rule making" procedures, and the Corps apparently acquiesced. The Corps working relationship with the states is excellent and only commercial naviagation interests are unhappy because they are expected to pick up the additional costs under full cost recovery and pass it along to a Minnesota farmer. The aforementioned letter is attached, marked Exhibit No. 2.

Not all of the emphasis should be placed on concerns of navigation interests as to who pays. Of even greater concern are the issues of marine safety and the risk of a channel blockage resulting from inadequate channel maintenance. Much of the dredging undertaken by the Corps in the St. Paul District is based on triggering the imminent closure provisions in the channel maintenance permits with the States of Iowa, Minnesota and Wisconsin. See attached Special Notice to Navigation Interests, May 8, 1981, marked Exhibit No. 3.

The attached letter from Admiral Norman E. Venzke, Commander, Second Coast Guard District, St. Louis, Missouri to Brig. Gen. Scott B. Smith, Division Engineer, North Central Division, Chicago, Illinois, attests to the fact that the concerns of commercial navigation interests are not exaggerated. (See Exhibit No. 4)

On December 31, 1980, the St. Paul District Engineer petitioned the Wisconsin DNR for a hearing on the Wisconsin Pollution Discharge Elimination System Permit (Water Quality Permit for Dredging) on the contention that:

"special conditions of the permit are neither technologically nor economically achievable by the permittee, are beyond the capability of the permittee, and are not consistent with the purposes of Chapter 147, Wisconsin statutes."

A public hearing was held at LaCrosse, Wisconsin on June 4, 1981. While our Association sought intervention, it was denied by the hearing examiner. Counsel for the Association did attend the hearing. At issue was whether "best available technology" could meet the requirements of the Wisconsin permit that the Corps of Engineers not contribute suspended particulate in excess of the number stated in the draft permit. The Corps is awaiting a ruling of the hearing examiner. Meanwhile channel conditions posing imminent hazards to marine safety continue to exist and the Corps dredging operations take on the character of a fire department rushing to and fro to put out brush fires at drastically increased costs.

The efforts of the Wisconsin DNR to implement the GREAT I Channel Maintenance Plan with utter disregard for costs or marine safety have not been limited to regulatory or permitting processes. The attached letter (Exhibit No. 5) from the Wisconsin DNR to the St. Paul District Engineer proposes legislation "exempting the Corps Mississippi River maintenance dredging operations from Wisconsin regulatory statutes provided that the operations are accomplished in a manner consistent with the GREAT I and GREAT II Channel Maintenance Plan." The letter states that "the objective is to have the law in effect for the 1982 dredging season."

Various challenges of state regulations or alleging interference with interstate commerce in the courts are under consideration, one of which has already been authorized by our Association. It is doubtful that the courts can adequately deal with the myriad of state and municipal regulations relative to Barge fleeting, dredging and disposal of dredged materials which contravene or conflict with Federal regulations and which seem to pose a threat to Federal pre-emption under the interstate commerce clause. It is likely that such litigation will only result in the matter being re-directed to the Congress. There are, of course, conflicting laws and regulatory procedures as well as "turf battles" between Federal agencies to add confusion and frustration.

The GREAT I insistence on reduced depth dredging may have suffered a severe setback in the long overdue decision in State of Wisconsin vs. Callaway (then Secretary of the Army), Western District of Wisconsin Case No. 73C183, where the Hon. James E. Doyle in an opinion dated July 14, 1981, held that:

"the Corps dredging to a depth of thirteen feet is a reasonable exercise of the discretion conferred upon the Corps by Federal statute," and

"the Court may not determine policy or judgment the Agency is authorized to make."

It was this case that stated the escalation of Corps O&M costs for environmental purposes, and it could be that the long overdue decision gives "hint of a solution."

Commercial navigation interest have been committed to "cost sharing" since enactment of P.L. 95-502.

The problem is that the Corps archaic accounting procedures provide for little more than a distribution to commercial navigation or flood control, despite the substantial increase in other beneficial uses that are readily evident. A document prepared by the Office of

Policy, Directorate of Civil Works, Office of Chief Engineers, based on data from the Pittsburgh, St. Louis and St. Paul Districts captioned "Navigation Cost Allocation Study: A Feasibility Case Study," soon to be released, indicates that the "Corps currently has the ability to allocate costs between Commercial Navigation, Hydro Power, Recreation, Fish and Wildlife, Environmental Quality, Water Supply, Water Quality and Flood Control." They simply have never been called to account to provide it, and we believe that Congress should give no serious consideration to full cost recovery until the Corps O&M budget has been allocated to each of the beneficiaries. We have analyzed the Corps O&M budgets for the St. Louis, Rock Island, Pittsburgh and St. Paul Districts and with some latitude categorized the account titles into (1) channel maintenance costs, (2) lock and dam costs, and (3) excluded non-navigational costs. The results of our analysis raises a concern that even the 10 cents per gallon fuel tax under existing law may already exceed the fair share allocation to commercial navigation.

The attached one page graph (Exhibit No. 6) shows the amount of sediment transported by the Mississippi River from the head of navigation to the Gulf. For purposes here, it is used to illustrate that tributaries such as the ChippewaRiver annually deposit large volumes of sediment that needs to be dredged in the vicinity of Reeds Landing. The State of Wisconsin has made little effort toward bank stabilization on the Chippewa River. It seems grossly unfair to assess such dredging costs to commercial navigation and an even more sophisticated breakdown of channel maintenance dredging costs by the Corps may be necessary to assure that commercial navigation does not cross-subsidize other beneficiaries of the inland waterway system.

When the Corps O&M budget has been fair and equitably allocated to the eight categories of beneficiaries determined by the Corps study, then a solution is readily possible that will both be a vehicle for full cost recovery and act as a fiscal restraint on the Corps escalating O&M budget.

We recommend that the Congress make a slight change in Section 404 (t) of the Clean Water Act of 1977, as amended, which would add a provision that:

"requirements beyond that minimally necessary to maintain navigation shall only be undertaken by the Secretary after securing a guarantee of reimbursement by such state or interstate agency proposing it"

Commercial navigation interests do not oppose the use of dredged material for various beneficial uses that have been determined by the GREAT I Study efforts. We merely expect other beneficiaries to pay their fair share also just as commercial navigation is expected to do.

EXHIBIT NO. 1

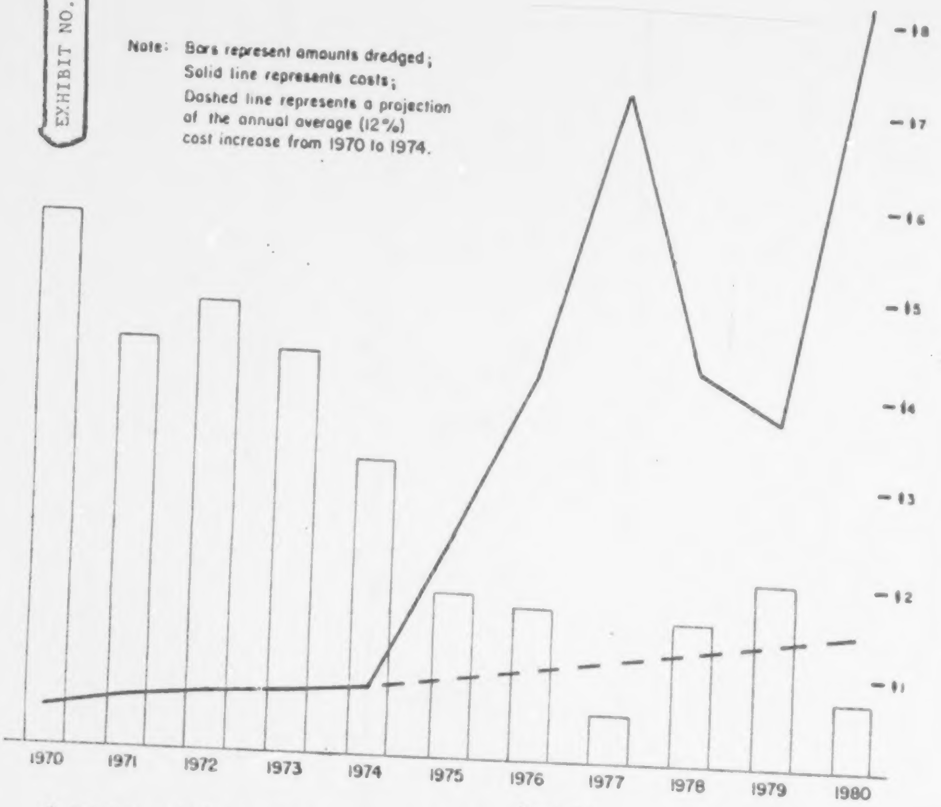

Note: Bars represent amounts dredged;
Solid line represents costs;
Dashed line represents a projection
of the annual average (12%)
cost increase from 1970 to 1974.

Figure IX-1

Comparison of Dredging Quantities and Costs for the St. Paul COE District (1970 — 1980)

	Volume (million cubic yards)	Cost per cubic yard
1970	2.26	$ .44
1971	1.74	$ .58
1972	1.91	$ .63
1973	1.70	$ .64
1974	1.47	$ .73
1975	.71	$2.38
1976	.65	$4.09
1977	.21	$7.08
1978	.61	$4.18
1979	.78	$3.63
1980 (est.)	.29	$8.13

EXHIBIT NO. 2

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

BOX 7921
MADISON, WISCONSIN 53707

April 15, 1981

COPY

IN REPLY REFER TO: 3550

JUN 3 1981

Colonel William Badger
U.S. Army Corps of Engineers
St. Paul District
1135 U.S. Post Office and Custom House
St. Paul, Minnesota 55101

Dear Colonel Badger:

Thank you for your letter on emergency and imminent closure dredging definitions on the Upper Mississippi River.

As you know, these definitions were the result of a long series of intense negotiations and compromises between several State and Federal agencies. Therefore, it is critical that there be no deviation from the GREAT definition of emergency and imminent closure dredging. The definitions you propose in your letter are not acceptable because of the following changes from the GREAT agreements:

1. The addition of the "the Corps will attempt to obtain approval from the appropriate state regulatory agencies prior to engaging in imminent closure dredging, but such approval is not required in order for dredging to be undertaken."

2. The deletion of much of the rationale from the GREAT definition.

The definitions set forth below, taken from the GREAT-1 report, are the definitions that the State of Wisconsin will be applying to Corps dredging commencing with the 1981 dredging season.

Emergency Definition and Procedure

Emergency dredging should be defined as dredging required to free a grounded vessel or remove shoals in the channel as a result of a vessel freeing itself. The emergency will continue only until an adequate channel depth and width, as determined by the Corps of Engineers, is restored to allow vessel passage.

the chemical and physical composition of the sediment, 8) duration of dredging operation, including beginning and end dates, 9) project alternatives considered including alternative dredging methods and placement sites, 10) discussion of mitigative measures that were considered and used, 11) discussion of any biological effects, and 12) written projections of water surface and depth.

We would like to call your attention to what we believe is a typographical error in the section dealing with emergency dredging and imminent closure on page VII-22 of the Main Report and the paragraph above. The definition currently reads, "Within 30 days of the emergency _of_ imminent closure...". It should be ..."emergency _or_ imminent closure...". Please make note of this in your copy of the Main Report.

The Department agrees that the same definitions of emergency and imminent closure should be reached by all the regulatory agencies of all states bordering the Mississippi and St. Croix Rivers. We also agree with your letter that this agreement should be consistent with the GREAT definitions. Therefore, this agency requests that all involved state regulatory agencies follow the above-cited _complete_ GREAT-1 definitions. Thank you for your courtesy in this matter.

Sincerely,

CDBesadny

C. D. Besadny
Secretary

cc: Minnesota Pollution Control Agency
Minnesota Department of Natural Resources
Iowa Conservation Commission

EXHIBIT NO. 3

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
1135 U. S. POST OFFICE & CUSTOM HOUSE
ST. PAUL, MINNESOTA 55101

JUN 3 1981

COPY

REPLY TO
ATTENTION OF:
NCSCO-M

8 May 1981

SPECIAL NOTICE TO NAVIGATION INTERESTS

Notice of Channel Conditions Upper Mississippi River Lower Pool #4

1. High flows on the Chippewa River, Mile 763.4, are creating difficult navigation conditions at the confluence with the Mississippi River. As of 6 May 1981, the river stage was up 3.7 feet. This hydrologic condition also subjects the 9-foot navigation channel to significant additional shoaling and basically rapidly changing conditions. New channel condition surveys will be conducted as the river stage subsides.

2. Prior to the current high flows, the following conditions existed:
   a. Confluence of Chippewa and Mississippi Rivers, Cairo Mile 763.4, channel width at low control pool 300 feet.
   b. Cairo Mile 763.1, above Reads Landing. A hump or small shoal illustrated by one sounding of 11.3 feet at present water stage is located 75 feet inside the red buoy line.
   c. Crats Island, Mile 758.9 - 759.3. The channel is generally shallow in this reach. The best channel condition is available along the left descending side of the 400 foot buoy channel. Dredging will be accomplished if site conditions do not improve.
   d. Grand Encampment, Cairo Mile 756.0 - 756.1. A small shoal, approximately 300 foot long extends inside the left descending red buoy line. A depth of 9 feet exists at the buoy line and extends to a depth of 10.5 feet, 100 feet inside the buoy line at low control pool. This shoal will also be dredged if the channel condition remains after the current high water.
   e. Beef Slough, Cairo Mile 753.5. Shoaling on the left descending side of the channel has adversely affected the normal alignment.

3. The existing high flows create adverse navigation conditions; channel conditions are subject to rapid change. Caution is requested while navigating the reach from Lock and Dam #4 to Lake Pepin.

FOR THE DISTRICT ENGINEER:

Wm. L. Goetz
WM. L. GOETZ
Chief, Construction-Operations
Division

DISTRIBUTION:
Navigation Mailing List
12 copies each L/D
12 copies L/D 1 Rehabilitation

UNITED STATES [illegible]

Second Coast Guard Dist.
1430 Olive Street
St. Louis, MO 63103
Tel. (314) 425-5005
FTS 279-5005

EXHIBIT NO. 4

16004

JUN 10 1981

Brigadier General Scott B. Smith
Division Engineer
North Central Division
U. S. Army Corps of Engineers
536 South Clark Street
Chicago, IL 60605

COPY

Dear General SMITH:

This will acknowledge your letter of 19 May 1981 and the St. Paul District Public Notice for the 1981-84 navigation seasons. The St. Paul District has stated its intention to implement preliminary GREAT I channel maintenance recommendations. Department of Transportation (including Coast Guard) concerns for the Channel Maintenance Plan (CMP) have been previously expressed and will not be reiterated, but still remain valid. While the GREAT Team did make decisions on the conduct of dredging activities they were not unanimous and often represented only the view of the particular state agency participating. It is important to note therefore, that the CMP has not been included into the Upper Mississippi River Basin Commission Comprehensive Coordinated Joint Plan (CCJP), was not approved by the Great River Study Committee, and has every indication that the Upper Mississippi River Basin Commission will not support it. It is believed that the Corps has a great responsibility and the opportunity to correct the environmental bias of the CMP by properly considering the critical safety concerns. It is also noted that the current administration has strongly reemphasized the need for all agencies to exercise fiscal restraint and responsible economic actions in all areas under their cognizance.

A major concern for the reduced depth dredging program has been the decision making process that was based primarily on hydraulic and environmental factors. The primary example of this is the Corps Evaluation form used in making depth determinations does not include any safety or vessel considerations. However, I was very pleased to note on page five of the Public Notice that the relationship of depth, width and channel configuration to commercial vessel safety is being given greater formalized consideration. As the principal agency concerned with vessel safety we would welcome the opportunity to provide additional input on this subject.

As a follow up to GREAT I CTWC activities we have initiated a broad based survey of users to obtain comments on the GREAT I proposed bend width changes. Responses received thus far indicate support for the proposed increases, and general opposition to the decreases. We support your proposal made at the Industry Day meeting in St. Louis to consider each bend individually, and to seek on site operator evaluations. In this regard I will support your efforts through our communication mediums and by our navigational expertise if desired.

The closing statement of your letter calls attention to the original authorised dimensions which at that time were considered safe for vessels drafting nine feet. Since then the nature of traffic has changed and our knowledge of shallow water effects on controllability has increased. There are indications that these dimensions may no longer be adequate for safety. The proposed channel maintenance plan moves in the opposite direction by calling for a reduction of historical dredging depths. While the ability of the Corps to maintain a channel to the controlling depth is understood a serious question remains as to whether the safety of todays traffic can be reasonably assured if the CMP is implemented. I am sure we can both agree that vessel safety should be one of the primary objectives of government involvement. It is my deepest concern that this matter be adequately addressed prior to the implementation of the GREAT CMP.

I strongly urge that you defer making any final determinations at either the district or division level without a careful reassessment of the critical safety problems involved in this issue.

N. C. VENZKE

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES
Carroll D. Besadny
Secretary

BOX 7921
MADISON, WISCONSIN 53707

June 3, 1981

IN REPLY REFER TO: 3550

EXHIBIT NO. 5

COPY

Colonel William Badger
Department of the Army
St. Paul District Corps of Engineers
1135 U.S. Post Office & Custom House
St. Paul, Minnesota 55101

Mr. James M. Harrison
Executive Director
Minnesota-Wisconsin Boundary Area Commission
619 Second Street
Hudson, Wisconsin 54016

Gentlemen:

Department staff have previously communicated with you on the status of proposed legislation exempting Corps Mississippi River maintenance dredging operations from Wisconsin regulatory statutes provided that the operations are accomplished in a manner consistent with the GREAT I and II channel maintenance plans. Enclosed is a copy of the proposed legislation which has been developed by the Department. Your comments on this legislation would be appreciated. It is the intent of the Department to seek legislative introductions of the bill in approximately 30 days. The objective is to have the law in effect for the 1982 dredging season.

Thank you for your assistance in this matter.

Sincerely,

C D Besadny

C. D. Besadny
Secretary

cc: Linda Bochert
George Meyer
James Lissack
Doug Morrissette
enclosure

AN ACT to exempt certain U.S. Army Corps of Engineers dredged material disposal sites from the prohibitions and permit, license and approval requirements of ss. 29.29, 59.971, and 87.30 and chs. 30, 144, and 147.

ANALYSIS

In 1974, the Great River Environmental Action Team (GREAT I) was established to develop a resource management plan for the upper Mississippi River, from Minneapolis, Minnesota to Guttenberg, Iowa. In 1976, GREAT II was organized to study the river from Guttenberg, Iowa to Saverton, Missouri.

After more than 5 years of discussion, research, selection and evaluation of dredged material disposal sites, and negotiation, reports have been issued by GREAT I and GREAT II which include channel maintenance plans. The plans identify a number of recommended temporary and permanent dredged material disposal sites. The use of some of these sites for the disposal of dredged material would be prohibited under existing Wisconsin statutes, however. Some of the sites are located in a flood plain or floodway and some are located below the ordinary high-water mark of a navigable waterway.

This bill would exempt specific dredged material disposal sites identified in the GREAT I Channel Maintenance Appendixes, Volume 8 of the GREAT I Study (September, 1980) and the GREAT II Channel Maintenance Handbook, a supplement to the GREAT II Main Report (December, 1980) from the prohibitions and permit, license and approval requirements in ss. 29.29, 59.971, and 87.30 and chs. 30, 144 and 147.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. Legislative purpose. The legislature hereby authorizes the use of certain specific sites for the disposal of dredged materials by the U.S. army corps of engineers notwithstanding the fact that the use of some of the sites would otherwise be prohibited by, or be regulated under, existing state statutes. The legislature finds that the dredged material disposal sites in question have been recommended by the great river environmental action teams, GREAT I and GREAT II, as part of two comprehensive channel maintenance plans which were developed after extensive research, detailed interdisciplinary evaluation of potential sites and negotiations between the U.S. army corps of engineers, the U.S. fish and wildlife service, several other federal agencies, and the states of Wisconsin, Minnesota, Missouri, Illinois and Iowa, taking potential environmental impacts into consideration. The purpose of this legislative authorization is to facilitate the maintenance of commercial navigation channels on the Mississippi river, to safeguard fish and wildlife resources, the quality of water in the river and the continued recreational use of the river, and to avoid increased flood elevations and encroachment into the flood plain of the river.

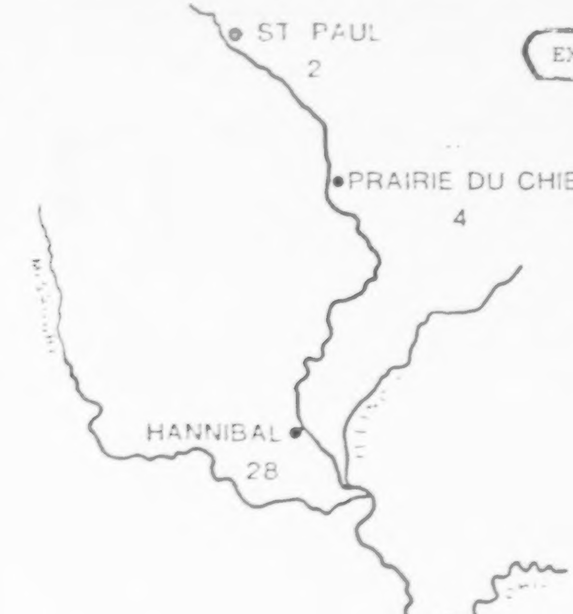
SECTION 2. Exempt dredged material disposal sites. a. The recommended channel maintenance plan sites described in the channel maintenance appendixes, volume 8 of the GREAT I study (September, 1980), and shown on the base maps in volume 8 to be located in the state of Wisconsin are exempt from the prohibitions and permit, license and approval requirements of sections 29.29, 59.971 and 87.30 and chapters 30, 144 and 147 of the statutes, provided that those sites are used by the U.S. army corps of engineers in a manner that is consistent with any applicable conditions for site use found in volume 8 or found on page VII - 16 of the GREAT I main report.

b. The primary disposal sites described in exhibit 2 of the channel maintenance handbook, a supplement to the GREAT II main report (December, 1980), and shown on the base maps in exhibit 3 of the channel maintenance handbook to be located in the state of Wisconsin are exempt from the prohibitions and permit, license and approval requirements of sections 29.29, 59.971 and 87.30 and chapters 30, 144 and 147 of the statutes, provided that those sites are used by the U.S. army corps of engineers in a manner that is consistent with any applicable conditions for site use found in exhibit 2 of the channel maintenance handbook.

(End)

THE AVERAGE ANNUAL SEDIMENT TRANSPORTED BY THE MISSISSIPPI RIVER FROM THE HEAD OF NAVIGATION TO THE GULF (IN MILLIONS OF TONS)

EXHIBIT NO. 6


ST PAUL
2
PRAIRIE DU CHIEN
4
HANNIBAL
28
ARKANSAS
MISSISSIPPI
NEW ORLEANS
166

SOURCE: U.S. ARMY CORPS OF ENGINEERS HISTORIC MONITORING

Missouri Chapter
of the
American Fisheries Society

CHARTERED MARCH 10, 1964

August 12, 1981

The Honorable James Abdnor
Chairman, Water Resources Subcommittee
U. S. Senate
Washington, D. C. 20510

Dear Senator Abdnor:

On behalf of the Missouri Chapter of the American Fisheries Society, I am writing to express our point of view regarding proposed legislation for cost/recovery of construction and maintenance costs related to port and inland waterway development. You are to be commended for conducting the hearing on this subject on August 12, 1981 in St. Paul, Minnesota. Though we were unable to present verbal testimony at this hearing, we trust you will give consideration to these written comments.

We in Missouri are blessed by the presence of two great navigable rivers, the Missouri and the Mississippi, which respectively transect and border our state.

By law both of these great resources belong to the people of Missouri, yet millions of taxpayers dollars have been expended to channelize these rivers for the direct benefit of just a few people. Facts regarding the Missouri River Navigation Project speak to this point. Over 750 million dollars in first costs and operation and maintenance monies have been spent on this project, which to date has recorded a maximum tonnage for one year of only 3.2 million tons.

The environmental impact statement released by the Corps of Engineers revealed that annual operation and maintenance costs for this project approach $15 million. In other words, the American taxpayer is being asked to subsidize industry to the tune of $4-5/ton just for operation and maintenance of the waterway.

Our society is of course concerned about the quality of environment and we are greatly troubled by the loss of the 100,000 plus acres of wetlands and other aquatic habitat as a result of the Missouri River project. This represents a tremendous fishery loss which has not been mitigated.

The Honorable James Abdnor
August 12, 1981
Page Two

However, as taxpayers, our first concern is to resolve economic problems surrounding waterway projects. We strongly endorse legislation which would seek to recover a fair share of construction and maintenance costs from those who benefit.

We appreciate the opportunity to make these comments.

Sincerely,

Norman Stucky

NORMAN P. STUCKY
CHAIRMAN, EIS REVIEW COMMITTEE

cc: Senator David Durenberger

Mr. Norman Stucky
Route 5, Oakridge Road
Jefferson City, Missouri 65101

Statement
of
GUY JESTER, PRESIDENT

ASSOCIATION FOR THE IMPROVEMENT OF THE MISSISSIPPI RIVER

Mr. Chairman and members of the Committee:

I represent the Association for the Improvement of the Mississippi River, an association of over 350 local governments, businesses, farm and labor organizations, waterway carriers, and shippers and other groups that depend on efficient and reliable transportation in the Midwest. AIMR believes that the Lock and Dam 26 replacement project is critically important not only to the Midwest but to the Nation. We have been the major force battling against the railroads and environmental groups who, since 1974, have been waging a protracted legal campaign in the courts to stop construction of this vital facility.

After seven years and hundreds of thousands of dollars, we have largely won that court battle. In October 1979 the District Court upheld the project, granting judgment in AIMR's favor on every substantive point. Just this past April the U.S. Court of Appeals affirmed the District Court's judgment, again siding with AIMR on every substantive issue. The railroads have filed a petition for certiorari with the Supreme Court, and this month AIMR will be filing an opposition to their petition. We are confident that the railroad's petition is without merit and will be denied.

During the long and arduous legislative battle over Locks and Dam 26, AIMR was part of the National Committee for Locks & Dam 26, along with nearly 100 national associations of business interests, labor unions, farmer cooperatives, electric power utilities, coal shippers, as well as virtually every farm organization in the United States. We worked long and hard and by overwhelming majorities in both the House and the Senate we passed legislation to build the facility. That legislation included a fuel tax on our waterways for the first time in our nation's history. It was a compromise that many shipper interests were opposed to but reluctantly accepted because Locks & Dam 26 was so vital to their future transportation needs. Now, just two years later, these same interests who have spent so much time, money, and effort on this issue are confronted again with an even greater threat -- the threat that all their efforts were in vain; that the trust they placed in Congress with the passage of the compromise legislation in 1978 was ill-founded and, regardless of the new legislative intent another Congressional initiative in another two years could once again make a new agreement meaningless. AIMR has no official position on waterway user fees although many of our members vociferously oppose them.

Our major concern is with the improvement of the Mississippi River for waterway navigation purposes. We have fought long and hard to that end and urgently request that whatever the resolution of the waterway user fee issue - that Locks and Dam 26 and the second lock of that facility be grandfathered into the legislation. This facility is so vital we cannot afford to waste more years in legislative and court actions brought on by the railroads and the environmental allies they have generously funded over the past years.

Locks & Dam 26 is perhaps the most important single navigation facility in this nation. This was recognized by the congressionally-mandated Rural Transportation Advisory Task Force which submitted their final report to Congress in January f 1980. That Task Force was made up of 16 members representing agriculture, railroads, trucking, barge, university and industry interests. The Task Force was chaired by the Secretaries of Agriculture and Transportation, and they heard testimony in public hearings across the country from hundreds of vitally interested public officials, private interests, as well as producers, shippers and industries concerned about transportation. That testimony and the combined expertise of the Task Force members resulted in the following recommendations:

> The Task Force recommends that the Corps of Engineers be directed to accelerate construction schedule of Locks and Dam 26. To facilitate implementation of an accelerated schedule, Congress should immediately appropriate the necessary funds.
>
> In addition, the Task Force recommended that Congress immediately authorize a second lock of 600 feet to provide capacity needed on the basis of grain export and other commodity projections, and as an important alternative in case of an emergency closing of the principal lock.

This Task Force recognized the need for this important facility. They, in fact, recommended an accelerated construction schedule; they recommended discarding the Upper Mississippi Basin Commission Study (Master Plan) and its determination of whether a second lock at Alton, Illinois is necessary since they found it to be absolutely essential because of agriculture export considerations, safety reasons, energy conservation purposes and just plain common sense.

Isn't it time Congress says to the railroads "enough is enough!"

United States
Department of
Agriculture

United States
Department of
Transportation

Agricultural Transportation Services: Needs, Problems, Opportunities

The Final Report of the
Rural Transportation Advisory Task Force

January 1980

Letter of Transmittal

Honorable Herman E. Talmadge
Chairman, Agriculture, Nutrition
and Forestry Committee
United States Senate

Honorable Thomas S. Foley
Chairman, Committee on
Agriculture
House of Representatives

Honorable Darius W. Gaskins, Jr.
Chairman
Interstate Commerce Commission

Gentlemen:

We are pleased to submit the final report of the Rural Transportation Advisory Task Force. The report contains the recommendations of the task force, as required by P.L. 95-580. The task force also published a preliminary report before its public hearings and then published a summary of the hearings.

The task force members have given of their time generously over the past 10 months. All of them have earned the gratitude of the agricultural and transportation communities. The work of the task force benefited from presentations by various guest organizations and individuals and especially from presentations and materials provided by the public in hearings conducted last summer.

The principal value of this report is that it is a reflection of the professional knowledge and experiences of the task force members. It is to their credit that they found ways of bridging their differing viewpoints to produce this report. While the Departments of Agriculture and Transportation provided them with staff support, this report is truly the product of the 14 individuals who sat on the task force.

The views and recommendations expressed in this final report are not necessarily those of the Administration.

Sincerely,

Bob Bergland
Secretary of Agriculture
Co-Chairman

Neil Goldschmidt
Secretary of Transportation
Co-Chairman

The Rural Transportation Advisory Task Force

Co-Chairpersons

The Secretary of Agriculture

The Secretary of Transportation

Members

Mr. Charles W. Bath
Executive Director - Traffic
Farmland Industries, Inc.
Kansas City, MO

Dr. C. Phillip Baumel
Extension Economist and
Professor of Economics
Iowa State University
Ames, IA

Dr. Harold F. Breimyer
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Mr. William F. Geach
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Blue Anchor, Inc.
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Mr. Wayne Hoffman
Chairman
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Mr. Richard Wilson
President
Agri-Trans Corporation
St. Louis, MO

Mr. James R. Wolfe
President
Chicago & North Western Transportation Co.
Chicago, IL

Mr. William B. Zagelow
Wheat and Cattle Rancher
Rural Route 2
Odessa, WA

Alternate-at-Large

Mr. Robert E. Harridge (deceased)
Vice President - Transportation
AGWAY, Inc.
Syracuse, NY

The implementation of this recommendation could:

- --Provide a means for bringing about the use of written contracts for the trucking of fresh fruits and vegetables;
- --Improve the environment in which unregulated trucking occurs by ensuring fair trade practices;
- --Resolve unloading problems of these truckers through a non-waivable provision on loading/unloading responsibilities; and
- --Provide needed assistance to the small, highly efficient truckers serving agriculture.

Rate and Cost Information for Unregulated Trucking

At the public hearings, some agricultural truckers commented on the lack of information on truck costs and rates for shippers and truckers of unmanufactured agricultural commodities. In the summer of 1979, USDA undertook regular reporting of this information, including rates charged in the previous week and average truck costs per mile for fresh fruit and vegetable trucking. Other information about commodities harvested and shipping patterns had been reported prior to that time.

The task force recommends that USDA continue to provide historical cost, rate, and other informaton that will be useful to truckers in deciding where to look for loads. This information:

- --Assists agricultural truckers in effectively allocating vehicles and drivers;
- --Informs agricultural truckers and shippers about marketwide rates and costs; and
- --Helps improve competition in an unregulated trucking environment.

Hours of Service for Truck Drivers

The Federal Government, in the interest of promoting highway safety, regulates the number of hours a truck driver may drive. These regulations affect some agricultural shippers who suggested at the hearings that hours of service should be increased. Others have suggested they should be decreased. There was little evidence supporting change in either direction.

The task force recommends that the hours-of-service regulations continue as presently formulated under Federal standards. An implication is:

- --Maintaining the hours of service prevents abrupt changes in trucking capacities.

Federal Development of Inland Waterways

Waterway transportation has become highly significant to agriculture, particularly in export trade. Measured in ton miles, agricultural freight is the second largest commodity group moved on inland rivers and canals. In 1960, only 14 million tons of grains and oilseeds were shipped by barge. In 1978, barges hauled about 50 million tons, about 40 percent of the exports of these commodities. Projections of exports to 1990 and 2000 suggest that the demand for barge transportation will continue to grow.

Waterway transportation is very efficient in fuel use, especially where circuity is not high. The unregulated status of bulk commodities shipped by barge permits future rates and services to be contracted, and the industry has been highly responsive in the 1960's and 1970's to agriculture's growing demands for service.

Locks and Dam 26

Locks and Dam 26 at Alton, Illinois, is located just below the confluence of the Illinois and Mississippi Rivers. It currently constrains the potential for increasing grain movements by barge, and unless the capacity is expanded, it may effectively limit the growth of grain exports in the next several years. Congress has authorized the facility's replacement with a new dam containing a single 1,200-foot lock.

To eliminate this constraint on barge shipments of grains and oilseeds, the construction schedule of Locks and Dam 26 must be accelerated.

The task force recommends that the Corps of Engineers be directed to accelerate construction schedule of Locks and Dam 26. To facilitate implementation of an accelerated schedule, Congress should immediately appropriate the necessary funds.

Congress has also directed the Upper Mississippi River Basin Commission to study, among other things, the economic and environmental impacts of constructing a second lock. The task force recognizes that some people believe the capacity now authorized will be adequate for several years to come. However, the task force is convinced of the need for greater capacity, particularly for emergency use in the event of failure of the main lock. By the time the currently authorized facility is completed, its capacity will be lower than projections of the capacity needed for today's traffic, plus the expected increases in grain and oilseed exports, and increases in fertilizer and other commodity movements. Because of the capacity limitations of a single lock, the task force concludes that analysis of the need for a second lock should be separated from the overall study of the Upper Mississippi River Basin Commission and accelerated.

The task force recommends that Congress immediately authorize a second lock of 600 feet to provide capacity needed on the basis of grain export and other commodity projections, and as an important alternative in case of an emergency closing of the principal lock

The recommendations, if implemented, would:

—Speed the construction schedule to provide the capacity that is needed;

—Help hold down inflation-induced cost increases;

—Help conserve energy now used in holding barge flotillas against river currents while waiting for lockage;

--Provide capacity of the second lock at an early date, thereby avoiding further constraint of grain and other traffic while construction proceeds; and

--Provide standby capacity of the second lock in the event of emergency closing of the one lock now authorized.

Long-lasting environmental impact disputes delayed initiation of the Locks and Dam 26 project well beyond the date that the Corps of Engineers determined its cost/benefit justification, and beyond the date scheduled to start construction. While the task force is sensitive to environmental concerns of this type, it believes that means must be found to give more consideration to economic impacts upon agriculture, and expeditiously to resolve conflicts as did Locks and Dam 26.

The task force recommends that executive and legislative branch procedures be improved to arrive at a better and more expeditious process for weighing economic and environmental considerations in projects of waterway development.

A better decisionmaking process will:

—Assure that waterway projects needed to meet the demands of today's economy and of agricultural exports in particular will not be delayed without good reason.

Snake-Columbia River System

The Bonneville Lock is a potential bottleneck on the Snake-Columbia River System. The Bonneville Lock currently limits movements at times of heavy traffic flow. The John Day Lock also slows traffic movements due to frequent closures for maintenance and repair of the John Day Dam, which is showing signs of rapid deterioration.

The task force recommends that there be coordinated examinations of the economic feasibility and environmental impacts of expanding the Bonneville Locks and of rehabilitating the John Day Dam.

Implementing this recommendation would:

—Improve competitive forces in the transportation of agricultural products from the upper Midwest and Northwest;

—Reduce the potential for future problems related to uncertainties in the long-term economic efficiency of using the Panama Canal;

—Reduce energy use by improving conditions for movements from the West Coast to the Far East, a distance approximately half as great as that from New Orleans to the Far East via the Panama Canal;

--Provide an example for the future in the expeditious consideration of environmental and economic aspects as proposed waterway developments; and

--Ensure that the cost/benefit analyses and environmental impact assessments are done at an early time before conditions become more critical.

The Welland Canal

The Welland Canal connects the Great Lakes with the St. Lawrence River and opens the Great Lakes region of the U.S. and Canada to oceangoing vessels. The canal lies in Canada, and currently operates near its capacity. Thus, further increases in grain exports through the canal may be constrained.

The task force recommends that the U.S. Government continue discussions with the Canadian Government for considering the economic feasibility of expanding the capacity of the Welland Canal.

Implementation of this recommendation would:

—Help ensure that economic efficiency of grain exporting through the St. Lawrence Seaway is not sacrificed due to divided international responsibilities for the seaway.

Calvin Dahm
Apartment 104
235 Exeter Place
St. Paul, Minn., 55104
August 15, 1981

The Honorable James Abdnor
Chairman, Water Resources Subcommittee of the
Environment and Natural Resources Committee
Senate Office Building
Washington, D.C., 20510

My dear Mr. Chairman:

I wish to express my support for the Reagan administration's proposal authorizing the federal government to recover 100 percent of waterway construction, operation, and maintenance costs through waterway user fees. This would assure that the free marketplace, rather than artificial subsidies, determines the relative use of various modes of transportation.

Waterway user charges on deep-draft navigation are doubly important in the quest for sound fiscal management. They would not only recoup past federal expenses on existing federal waterways, but would also discourage shippers and barge operators from lobbying for further federal investments in new waterways except where the benefits truly outweighed the costs. There would no longer be the expectation of federal subsidies that has encouraged the waterway lobby to promote uneconomical and inefficient pork-barrel projects.

The existing fuel tax is inadequate and has accomplished little toward recovering commercial waterway development costs from users.

Please include my letter in the hearing record on waterway user fee legislation.

Very truly yours,

Calvin Dahm

SENATORS ABDNOR AND DURENBERGER
WATER POLICY HEARINGS
ST. PAUL, MINNESOTA - AUGUST 12. 1981

MY NAME IS NORTON QUARVE, OFFICE ADDRESS 815 GRAIN EXCHANGE BUILDING, MINNEAPOLIS, MINNESOTA 55415. I AM EMPLOYED AS REGIONAL TRANSPORTATION MANAGER FOR CONTINENTAL GRAIN COMPANY WITH OVER 30 YEARS OF EXPOSURE IN TRANSPORTATION OF GRAIN BY RAIL, TRUCK, BARGE, AND VESSEL.

HERE IN THE UPPER MIDWEST IN STATES LIKE IOWA, MINNESOTA AND THE DAKOTAS THE AGRAINIAN COMMUNITY SEARCHES THE U.S. AND THE WORLD FOR THE BEST MARKETS FOR ITS FARM SURPLUS. EVERY SHIPPER IN THIS SURPLUS AREA LOOKS FOR ALTERNATIVE DESTINATIONS WHERE A SALE WILL RETURN EVEN A FRACTION OF A PENNY MORE PER BUSHEL OR CWT.

BECAUSE THE MARKET INFORMATION SYSTEM IS SO WELL DEVELOPED AND BECAUSE GRAIN LOTS ARE SO READILY INTERCHANGED, HUNDREDS OF COUNTRY ELEVATORS RESPOND TO EACH NEW PRICE SIGNAL. ALL OF THESE PRICES ARE TIED TOGETHER BY A TRANSPORTATION NETWORK, WHICH REFLECTS BOTH DOMESTIC AND GLOBAL COMPONENTS. PRICE IS THEREFORE THE KEY CONTROL VALVE IN THE PIPELINE OF GRAIN MOVEMENT. THE SLIGHTEST OPENING OF ONE VALVE, NAMELY A HIGHER PRICE, WILL IMMEDIATELY SHIFT THOUSANDS OF BUSHELS FROM ONE DESTINATION TO ANOTHER DESTINATION - IF IT REPRESENTS A HIGHER NET PRICE TO THE SHIPPER.

IT IS THIS COMBINATION OF GRAIN PRICES AND TRANSPORTATION COSTS THAT DETERMINES THE FLOW AS WELL AS THE MODE OF TRANSPORT, PROVIDED OF COURSE THAT THE MODES OF TRANSPORT AND THE SUPPORT SYSTEMS IN PLACE - SUCH AS ELEVATORS - HAVE THE NECESSARY LOGISTICAL CAPACITY AT A GIVEN TIME, WHICH IN THE TERMS OF U.S. GRAIN PRODUCTION, MUST BE IMMENSE AND EFFICIENT. THE MISSISSIPPI RIVER NAVIGATION SYSTEM AND ITS INTERFACE TO THE TREMENDOUS ELEVATION AND HANDLING SYSTEM AT THE 125 MILE DEEP WATER AREA FROM BATON ROUGE TO NEW ORLEANS MEETS THAT CRITERIA.

FOR EXAMPLE, LAST JANUARY 1981, OVER 3,700 LOADED BARGES, OR ROUGHLY 200,000 MILLION BUSHELS OF GRAIN, WERE MOORED IN THAT 125 MILE AREA IN A READY MARKET AND EXPORT POSITION TO ALL AREAS OF THE WORLD, I REPEAT TO ALL AREAS OF THE WORLD.

SO THE IMPORTANCE OF THE RIVER NAVIGATION SYSTEM IS REALLY DICTATED BY GEOGRAPHY - WHICH NONE OF US CAN CHANGE, EXCEPT TO OUR OWN DETRIMENT. THE MISSISSIPPI RIVER GULF COMPETES IN EVERY MAJOR MARKET OF THIS WORLD. BY CONTRAST - FOR OBVIOUS REASONS OF DISTANCE BY LAND AND SEA - THE PORTS OF DULUTH AND SUPERIOR AND OUR ATLANTIC PORTS ARE RESTRICTED LARGELY TO THE EUROPEAN AREA; THE PACIFIC PORTS LOOK TO THE ORIENT MARKETS; BUTTHE GULF, IN ADDITION TO SERVING BOTH, EAST AND WEST, ALSO IMPORTANTLY SERVES OUR NEIGHBORS IN LATIN AMERICA AS WELL AS AFRICA, AND IS THEREFORE OUR MOST KEY AREA IN THE GLOBAL MARKETS FOR OUR SURPLUS AGRICULTURE PRODUCTION.

OBVIOUSLY THEN, ANY COST RIPPLES IN THAT NAVIGATION SYSTEM WHETHER IT BE FLEETING AND MAINTENANCE DREDGING RESTRICTIONS, USER CHARGES, OR LOCK RESTRICTIONS, REVERBERATES THROUGH THIS SENSITIVE COMBINATION OF PRICE AND TRANSPORTATION RIGHT BACK TO FARM AND PRICE PER BUSHEL.

THE MOVEMENT OF AGRICULTURE PRODUCTS IS AN INTEGRATED INTERMODAL EXERCISE, IDEALLY PERFORMED BY EVERY MODE DOING WHAT IT CAN DO BEST AND AT THE LEAST COST. HAPPILY OUR TRANSPORTATION SYSTEM CAPABILITY HAS GROWN BY LEAPS AND BOUNDS THE PAST FIVE YEARS. ESPECIALLY ENCOURAGING IS THE PROGRESS MADE BY THE RAILROAD INDUSTRY AS A WHOLE AND ONE WHICH MUST BE CONTINUED. EQUALLY OBVIOUS IS THAT THE TREMENDOUS INDUSTRY INVESTMENT IN THE INLAND AND COASTAL LOGISTICAL NAVIGATION SYSTEM MUST BE ACCORDED FAIR TREATMENT BOTH IN THE ENVIRONMENTAL ARENA AND IN THE GOVERNMENTAL CLIMATE ASSISTING ALL FORMS OF TRANSPORTATION.

THANK YOU.

Statement

# of the

Minnesota Farm Bureau Federation

Mr. Chairman and members of the Subcommittee:

We appreciate the opportunity to submit for the field hearing record comments, observations and views on the subject of inland waterway user fees.

The Minnesota Farm Bureau Federation is the largest general farm organization in this state, with 35,000 member families in 83 county units. It is a voluntary, nongovernmental organization representing farmers who produce a wide variety of agricultural commodities, including cash grain, and who operate a sizable number of Minnesota's commercial farms.

Relative to inland waterway user fees, elected voting delegates of the member state Farm Bureaus to the 62nd Annual Meeting of the American Farm Bureau Federation in New Orleans, Louisiana, on January 15, 1981, adopted the following statement:

> "Public policy should encourage expansion of inland water transportation since it represents the most energy-efficient mode . . . .
>
> "We accept the imposition of a reasonable user fee on water transportation dedicated for waterway purposes providing that its basis and maximum level are clearly established in advance and the proceeds are utilized for those waterways from which fees are derived.
>
> "Any user fee applied to water transportation should be at a level which will provide no more than that portion of the cost

of waterways allocable to transportation, inasmuch as the waterways also provide significant public benefits in recreation, wildlife preservation, public water supply and flood control."

An efficient and affordable national transportation system is vital to modern production agriculture. It must be prepared to serve a variety of origins and destinations for various commodities and in varying amounts. It must be able to satisfy the ever-increasing demand for food and fiber, both at home and abroad.

The inland water transportation network is an important link in the transport system serving agriculture. In 1979, inland waterway carriers transported nearly one-fifth of the total grain and soybeans and about one-third of grain and soybean exports. Shipments of grain and soybeans on inland waterways increased by 91 percent between 1970 and 1976. Barge shipments of corn, too, have steadily increased since 1970.

As of 1979, there were slightly over 25,000 miles of commercially navigable inland waterways in the United States which were operated, maintained and improved by the federal government. The Mississippi River system and Gulf Coast waterways comprise slightly over one-half the total waterway system's mileage.

The majority of all agricultural commodities moving by barge are shipped on the Mississippi River and its tributaries--primarily the Illinois, Ohio and Missouri Rivers. As major fertilizer production occurs in the Southeast, and crops are grown the length of the river, natural backhauls involve fertilizer moving upstream and grain bound for export moving downstream.

Until recently, maintenance, improvements and operations of the inland waterway system have been provided by the federal government at no direct cost to the water carriers. According to the Economics and Statistics Service of the U. S. Department of Agriculture, the government spent an estimated $14.7 billion on the maintenance, improvement and operation of the domestic waterway system over the almost 200-year period between 1791 and 1975.

Public Law 95-502, enacted by Congress in 1978, authorized replacement of Lock and Dam No. 26 on the Mississippi River at Alton, Illinois, and imposed a user charge on all commercial inland and intercoastal waterway navigation for the first time.

On October 1, 1980, a 4-cent per gallon waterway users fuel tax was imposed and will be increased to 10 cents per gallon after September 30, 1985. However, as part of its economic recovery proposal, the Reagan Administration is seeking full recovery of costs involved in maintaining public waterways.

Consuming the least amount of energy per ton-mile of any mode, barges generally have the lowest unit cost for long distance transportation and the greatest unit capacity. One hopper barge can haul the cargo of fifteen 100-ton railcars, or more than 57 trucks with a capacity of 26 tons each.

Proposals that call for an immediate (October 1, 1981) 15-cent per gallon diesel towboat fuel tax are a marked departure from a system that has served this nation well for over 150 years. We would point out that 15 cents per gallon equals 4.5 cents per bushel cost to the farmer shipper. A 1-cent per gallon fuel tax increases transportation costs on grain from Minneapolis to New Orleans by 10 cents per ton, or

.03 cent per bushel. As to what effect other as-yet unspecified charges would have on transportation costs, we suggest no one at this juncture can hazard as much as an educated guess--except to conclude that the Upper Midwest most likely would be severely impacted and that the cost of grain transportation would further increase.

It would seem to us, therefore, that there are a number of key questions in need of answering before the impact increased inland waterway fees would have on agriculture can be assessed. Before an equitable and defensible user fee schedule is adopted, answers must be found to questions such as the following:

1. Will the fees disrupt agricultural export trade? Our farm exports are crucial in efforts to have balance in our international trading. A keenly competitive world grain market finds numerous suppliers vying to meet importers' needs. Should user fees result in U. S. farm products being priced out of a significant part of that market, the cost could well far exceed the fiscal gain the government will net from these taxes.

2. Will user fees depress farm income and threaten the solvency of family farms? Historically, fees of this kind are absorbed by producers, not by purchasers. The resulting negative price impact in "bad" years could contribute to chronic financial difficulties for young family farmers in particular.

3. What will be the impact of user fees on barge-rail competition? With enactment in 1976 and 1978 of regulatory reform legislation, the role of the Interstate Commerce in protecting agricultural shippers from unreasonable rail rates has been diminished. Competition now is the major rate and service regulator, with barge transportation the

only competitor to the rail industry for long haul movements of bulk commodities. Should user fees force increases in river rates, railroads more than likely would raise their freight charges, resulting in increased costs for both modes of transportation.

4. Will user fees mean some waterways closing to commercial traffic and, if this happens, what will be the impact? Some river systems are more costly and less developed. We suggest that user fees would more heavily affect these. If costs were to become prohibitive, barges could, with relative ease, utilize rivers with less burdensome levies. Rail monopoly situations could follow--complete to higher carriage rates and poorer service.

5. As farmers, how can we be assured that our waterway user fee money will be used to finance needed waterway improvements? Farm Bureau feels that if waterway users are to fund waterway improvement projects, they should have a strong voice in determining how their money is spent.

6. As farmers, how can we be certain that all inland waterway users will share in operating and maintenance costs? At the moment, we sense efforts to assign most of the cost of maintaining and improving inland waterways to commercial navigation. As we mentioned in our opening comments, Farm Bureau policy supports devising an equitable fee structure that would require an allocation of cost--according to benefit--among all users. It is our thinking also that costs incidental to environmental protection and military preparedness should be the responsibility of the public sector. The manner in which these costs are apportioned among all waterway beneficiaries will, in large measure, determine the adverse impact on agriculture.

7. _What sort of charges would be the most acceptable, and the least disruptive, as far as agriculture is concerned?_ A number of approaches have been surfaced, and are being discussed, for 100 percent recovery of federal waterway and port expenditures, current cost of which is $235 million per year. Some proposals favor a fuel tax increase. Others suggest segment charges, lockage charges, tonnage tax, ton-mile tax, congestion charges and charges based on cargo capacity. Any one or more of these proposals might prove disruptive and costly to the farming community.

In any event, before Congress enacts waterway and port recovery legislation, the Minnesota Farm Bureau Federation urges an exhaustive study be made so that impacts on agricultural production and distribution whatever plan, or combination of plans, would have might be determined.

Thank you.

Date: August 12, 1981

To: Senator Abdnor, Chairman
Water Resources Subcommittee of Environment and Public Works

From: Kiki Sonnen
2078 Temple Ct.
St. Paul, MN 55104

Re: User Fees

For the past three years I have been heavily involved in volunteer activities to protect a unique historical-cultural-natural resource treasure within the metropolitan area. The place is called Pig's Eye and it is named after Pierre "Pig's Eye" Parrant, the first white settler in St. Paul, Mn. Pig's Eye includes a 500 acre backwater lake, river shoreline, a large heron and egret rookery and numerous wetlands and floodplain forest.

Because expansion of barge fleeting (parking) facilities and the massive dredging and filling which it would entail will devastate the Pig's Eye area, I have become familiar with certain aspects of the commercial navigation industry. I am a member of the state's Environmental Quality Board's Task Force on Barge Fleeting and have participated in many meetings held by GREAT, Upper Mississippi River Basin Commission, Army Corps of Engineers, Metropolitan Council, Environmental Quality Board and other agencies on river-related issues.

I favor the proposal to recoup 100% of the costs of channel maintenance and lock and dam operation and construction by assessing fees on the commercial navigation users.

I find it incredible that the U.S. taxpayer has been charged for the last 40 years to providing a totally subsidized transportation route along the inland waterway system for commercial navigation users. The Corps of Engineers will spend $5.7 billion for constructing and operating the system in the next 5 years and since the Oct. 1980 institution of nominal user fees, only 6% of these costs will be recovered by the present fuel tax, which is 4¢ per gallon now and will be 10¢ per gallon after Sept. 1985. This is unfair. User fees must be increased to the point where the total costs of operation, maintenance and new construction are covered, as the Reagan Administration has proposed.

I realize the importance of commercial navigation to the region's and nation's economy. I realize commercial navigation users have their problems - many of which stem from the rivers' physical constraints.

But I want to make clear that expansion of commercial navigation is the cause for many other problems. In numerous instances, commercial navigation impacts on aesthetics, recreation, non-river related industrial and residential development, fish and wildlife resources, critical habitats, and water quality.

In Minnesota we have a history of believing the river must serve many purposes and many users. We designated the Mississippi River from Anoka to Hastings as a Critical Area and each river community must develop a plan to balance those multiple uses. Our Senator Dave Durenberger and our U.S. Representative Bruce Vento introduced legislation to explore national recreation area status for the metro regions of the Minnesota, Mississippi and St. Croix Rivers. I believe we are firmly committed to viewing our rivers as much more than a highway for commercial navigation.

But we will never achieve truly balanced multiple uses of the river as long as the costs of commercial navigation are subsidized by the taxpayer. Until the commercial navigation industry is forced into paying the real costs of river shipping they will continue to expand beyond their true needs and the other users of the river will suffer.

Let me illustrate the contention that the commercial navigation industry capriciously expands because they now only pay artifically low costs for that development. The Pig's Eye barge fleeting project proposes to dredge out 60 acres of land earmarked for a regional park and the dredge spoil would be used to fill in 100 acres of open water to expand an industrial complex. The dredging project would eliminate 73 existing shoreline barge parking spots. The dredged basin's capacity would be 100 barges. That is a net gain of 27 barges. The project's cost is $13-14 million paid by St. Paul Port Authority industrial bonds - No cost to the barge companies except for nominal leasing fees. Industry representatives have admitted they only use all their available sites 6 - 8% of the time.

For the sake of 27 new parking spots used 8% of the time, we are expected to accept destruction of our park land, filling of a wetland, degraded water qualtiy (the dredging and barge operations would be directly downstream from the sewage outfall), possible damage to the heron rookery and usurption of other uses of the river.

If the industry had to pay user fees for the river system and had to pay the costs of the Pig's Eye project, I believe they would certainly think twice before pushing such questionable expansion projects.

For these reasons I favor the Reagan proposal for increased user fees.

Office of the Superintendent

UNIVERSITY OF MINNESOTA
Northwest Experiment Station
Crookston, Minnesota 56716
(218) 281-6510 ext 462

May 5, 1981

The Honorable James Abdnor, Senator
Senate Environmental and Public Works Committee
4204 Dirkson Senate Office Building
Washington, D.C. 20510

ATTENTION: Subcommittee on Water Resources

RE: Meeting of Senate Water Resources Subcommittee of the Senate Environment and Public Works Committee on April 21-23, 1981, in Washington, D.C.

My name is B. E. Youngquist. I have lived in the Red River Valley of northwestern Minnesota for 26 years. I am superintendent of an Agricultural Experiment Station for the University of Minnesota, and since 1969 I have been involved in the federal-state-local water planning efforts as chairman of the Citizens Advisory Council to the Souris-Red-Rainy River Basins Commission. The Citizens Advisory Council was established to provide a broad base of local voice to the River Basins Commission planning effort. Following 1969 and for some time I served as the official representative of the State of Minnesota on the Commission. When the Commission's job was completed, and it was officially terminated, a regional office was set up in Fargo, North Dakota to continue the work of the Souris-Red-Rainy River Basin water management planning effort under the wing of the Upper Mississippi River Basin Commission.

What has the Souris-Red-Rainy River Basins Commission work meant to the River Basins and particularly to the Red River Basin?

The first result was teamwork. Previous to the existence of the SRRR Basins Commission, different pieces of information about water resources and related land in the Souris-Red-Rainy region was documented among several federal agencies, state agencies, local governments, and water management groups. Assembling a comprehensive description for a water problem was, at best, time consuming and unduly frustrating. I watched with a deal of interest as commission members representing states, federal agencies, and the local citizenry learned to know each other, understand each other's problems and come to a consensus on how issues might be resolved. The steady attendance by an observer from Canada strengthened the planning and served to build mutual confidence between the two nations' water resource planning efforts.

Souris-Red-Rainy River Basins Comprehensive Study

The eight-volume study was produced, completed and ready for distribution by 1972. This report was the result of over four years of work by a capable team of professional people assisted by several task forces representing federal and state agencies plus local citizen input. The report inventories water and related land resources and how people earn a living in the Souris-Red-Rainy River Basins. All water needs were projected, water management problems identified, and correctional programming alternatives were suggested. The report was sent to all federal and state agencies, local government agencies, and watershed management boards. Unfortunately, the Commission was disbanded by administrative order about the time the report was published. A regional office for continuing some planning service to the SRRR was set up under the umbrella of the Upper Mississippi River Basin Commission. This regional office, with one professional leader plus some clerical help and some part-time professional people has served well to provide an annual update on water project priorities, among other services, to water resource planning in the basin.

Use of the Report Today

The report was recognized immediately by watershed management boards, county engineers, city government and other groups concerned with water management matters as a dependable source of water resource information in the SRR River Basin. The Red River Basin is highly organized with watershed management boards on nearly every watershed on the Minnesota side of the Red River Basin. Every one of these groups use these volumes as they begin their indepth study and work toward action programs. Without this "Bible" of water resource information, it would still be nearly impossible to gather this information. Significant local watershed management and cooperative activities among the watersheds are now taking place with local and state financing. The comprehensive study produced by the Souris-Red-Rainy River Basins Commission is a very useful product greatly enhancing the current work of the local watershed boards. Such a study needs a modest but ongoing effort to continually update the water management planning in accordance with changing conditions in the Souris-Red-Rainy River Basin.

Souris-Red-Rainy River Basins Commission Useful to Inter-State Conflicts

Diking work by local farmers on the Red River of the North was looked at early in the diking process under the leadership of the river basin commission. Public discussions were held. The chairman of the commission was responsible for assembling state and federal agencies together where dialogue continued until the problems were on their way to peaceful resolution.

Consensus Model

I have had the privilege of working on many different commissions during my over 35 years of professional life. The consensus model may well have its shortcomings; however, in working with such a diverse group as called for in the federal agencies, state agencies, and local voice input, I found the consensus model as efficient as any task force model. It resulted in more understanding of the problem at hand than I've seen produced by public hearings and other kinds of models that are supposed to provide information or get input from the public.

Water Management Capabilities of States and Citizen Input

Speaking from the State of Minnesota, it is my observation as a lay citizen that the State of Minnesota has progressed in its ability to understand and manage their water resources since the Public Law 89-80 established programs which encouraged the development of state water plans. Minnesota still has made a strong beginning. It is my opinion that we wouldn't be where we are today if it hadn't been for the encouragement of Public Law 89-80.

The Citizens Advisory Council of Minnesota for the Souris-Red-Rainy River Regional Office in Fargo believes a useful water planning effort would be lost by the phasing out of the Regional Souris-Red-Rainy River Basins office located in Fargo. We would lose this ongoing dialogue among the federal and state agencies with input from the local citizenry and also the listening observer ear from Canada at the planning meetings.

I can think of two very important items that would be missing in the comprehensive study of the SRR River Basins published in 1972 if citizen input had not been part of the scene. Professional people at the federal and state level are often insulated from the developing scene and their reports will be on old data as well as incomplete on the regional level.

New Water Office--Interior

A single office may well reduce the federal bureaucracy. Certainly the number of agencies at the federal level with some responsibility for water needs careful study.

The major planning concern for water should be at the state level operating under very broad federal guidelines. The natural hydrologic implications which were provided for by the River Basin Commission system makes a lot of sense. A river basin doesn't pay any attention to county lines and state lines, but instead to the natural hydrologic drainage basin as we work to understand management of the precious water resource not only for one river, but for all basins.

Public Law 89-80 was ten years in the debating and dialogue process in congress before becoming one of the landmark pieces of legislation at the federal level. It provided for citizen input in water planning and it identified the natural hydrologic river basin as the geographic planning unit.

The Minnesota Citizen Advisory Council is certainly behind the laudable move to bring federal spending in line with federal earning. Whatever is done must provide for continuing and responsible planning and action programs to manage water resources for use by all citizens.

It's just possible that River Basin Commissions haven't succeeded as well in every situation as such did here in the SRR River Basin and we could have accomplished a lot more if the "action phase" of water resource management had not been unduly hampered by federal mandate.

The suggestion of initiating an office of water policy in the Department of Interior is one way to go. The new legislation cites that such an office would advise the Secretary of Interior on water policies. Watch it! The Secretary of Agriculture, the Secretary of War, and the Secretary of Health, etc., are also very key cabinet officers in the matter of water policies. Public Law 89-80 set up a mechanism so those secretaries were talking to each other by law. I realize my information may not be complete on the new office for water policy.

This testimony is for the record of hearings held on April 21-23, 1981.

Respectfully,

B.E. Youngquist

B. E. Youngquist, Chairman
Minnesota Citizens Advisory Committee
Souris-Red-Rainy River Basin
Northwest Experiment Station
Crookston, MN 56716

js
cc: Tom Kalitowski, Minnesota Water Planning Board, Vice Chairman UMRBC
Jeff Featherstone, UMRBC
Floyd Fischer, SRRR Regional Office, Fargo
Gordan Berg, Chairman, ND Citizens Advisory Council
Vern Fahy, ND State Water Commission
Gary Botzek, Natural Resource Aide, Governor's Office

STATEMENT OF JAMES FISH
EXECUTIVE DIRECTOR, GREAT LAKES COMMISSION

Mr. Chairman, Members of the Committee:

I am James Fish, Executive Director of the Great Lakes Commission. I am pleased to be here today to share some preliminary views on the subject of port development, maintenance of ports and navigation channels, and the importance of this investment to the nation.

While I have previously had the honor of appearing before this Committee, I believe it is appropriate at this field hearing to provide you with background on the Great Lakes Commission, the Great Lakes economy, and shipping on the Great Lakes as a preface to this testimony and to the subjects you are addressing today.

The Great Lakes Commission

The Commission is an interstate compact commission formed in 1955 by the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin. The Commission is funded solely and determinedly by these eight States; there is no federal funding. The Commission's concerns range from regional economic issues such as industrial development, imports and exports, ports and shipping to the resource management issues of water supply, water quality, shoreline use, recreation and fisheries management.

The Great Lakes Commission represents the collective interests of the State legislatures, the Governors and State water administrators to the Congress and to the federal agencies as policies are developed. We work with unions, shipping companies, ports, environmental groups, academic institutions, federal agencies, State agencies and associations of all of the foregoing. We also serve as an information and referral service for groups and individuals with specific problems.

Presently, the Great Lakes Commission is leading a study to determine how exports from the Great Lakes region can be increased through improved marketing and utilization of the Great Lakes/St. Lawrence Seaway transportation system. This study was initiated at the request of the Great Lakes ports, shippers and States.

Governor William Milliken (Michigan) has also requested that the Great Lakes Commission work with his representative and represenatives of the seven other Great Lakes Governors to develop an overall transportation strategy for these eight States. The strategy will provide a guideline for State response to the numerous Administration and Congressional proposals, as well as a basis for further cooperative State actions. You may be assured that the Commission and its eight member States will share this strategy with you both as it is being developed and when it is completed.

To assure that there is no confusion or misunderstanding, the Great Lakes Commission maintains an invariable bottom line -- getting the job done and getting it done right, which includes full protection of our water environment. The Great Lakes are the largest body of freshwater in the world, representing one of the greatest environmental and economic assets blessing this continent. The GLC has not and will not stand by and permit destruction of this asset through misuse — or through enactment of descriminatory or negative legislation on the part of the federal government. We believe in the wise use and development of this asset. As with any asset — financial or resource -- water must be both protected and used in our regional and national economy if we are to continue to prosper as a country.

Great Lakes Economy

It is no accident that much of America's 19th and 20th century industrial boom took place in the Great Lakes. We have raw materials — especially iron ore and coal -- and the transportation system to move those as well as finished products, first on the Great Lakes, then on New York's Erie Canal and now on the St. Lawrence Seaway. Agricultural land in the Great Lakes region and its transportation hinterland has permitted this nation to not only provide food for our own people, but to give an export capability second to none -- again using our own Great Lakes/St. Lawrence Seaway system. Water and water transportation are vital to this Great Lakes economy, just as it is to the national economy.

Transportation of raw materials -- wood, grains, coal, ore, etc., -- on the Great Lakes water system is absolutely critical to the economy of this region. Attached to my testimony (Attachments A & B) are reports on lake commerce passing through the St. Mary's Canal at Sault Ste. Marie, Michigan. In 1979, 108 million tons moved while 96 million moved in 1980. We expect to move about 100 million tons in 1981. For comparison, this is about two thirds the tonnage moving through the Panama Canal in 1980. That's a lot of material. I wish the Members would think of these tonnages not just as statistics, not just as loaded ships, but rather as jobs for the people of the Great Lakes, the Mid-West and so on — the people involved in producing the raw materials, finishing, shipping and ultimately, if the system is working, as consumers with money to purchase the products with some dollars left over to save.

As the Congress and the Administration examine user fees, port charges, cost sharing and the like for water projects, it is very important that all understand the very critical relationships between rate structures for shipping and prices of the goods being moved. Internationally, the prices for grains, ores, coal, wood products, etc., vary only by pennies per ton. The decisions you make, impacting the cost of shipping, have the potential to expand or disrupt the fragile economies of large portions of our country at critical recovery points as well as to affect the U.S. balance of payments. Because international grain sales, for example, turn on parts of cents per bushel, even a very small change in freight rates charged to either buyers or sellers can totally change routing and even determine if the grain can be exported. Iron ore and taconite pellets have equally narrow margins. A study by a northern Michigan university last year found that a small change in costs of Lake Superior ores or pellets to steel mills on Lake Michigan and Lake Erie has the potential of diverting purchases from domestic ores to foreign ores which in turn would probably cause relocation of steel mills to the coastal portions of the U.S. Additionally, this could undoubtedly cause increased importation of foreign finished steel products rather than U.S. production.

Ultimately, it is important to keep in mind that the Great Lakes economy is a water economy. The commerce and industry grew up around the ports of the Lakes and water transportation continues to be a critical factor of our economy.

Great Lakes Perspective on Federal Water Expenditures

My statement on ports and port funding must necessarily include a report on the general feelings expressed in the Great Lakes water development community. Simply put, water managers, port directors and transportation specialists in the Great Lakes region see major projects and programs going forward in the South and West -- and very little happening in our own area. Appropriations for one project in the South or West generally exceed the total funding for the Great Lakes hydrologic region. While water managers and elected leaders in the Midwest would not deny development to any other area -- and have historically supported it -- there is constant frustration at the minimum activity in the Midwest.

In order to look to the future, it is helpful to know what the current budget looks like.

There are several areas of the proposed 1982 budget that should be emphasized, for descriptive purposes. First, operations and maintenance at approximately 57% of the Great Lakes budget represents the largest category of outlay in the system. In addition to maintaining the system, critical to retaining the investment already made by industry, federal, State and local governments, this category also provides the basis for ongoing environmental studies critical for such efforts as season extension in the St. Mary's River reach of the system.

The diked disposal funding, a major requirement on the Great Lakes system at 20% of the budget assures that polluted materials (in the harbors and waterways at no fault of the ports) will be adequately managed over extended periods of time. Because most of the diked disposal areas are being constructed to serve existing projects, it can be safely stated that well over 75% of the proposed Great Lakes civil works budget is committed to maintenance of the system. This is in comparison to a national program which applies only about 37% to O & M and 58% to new construction.

This disparity for the Great Lakes system leads many in the region to be concerned about the national approach to water policy and port development.

St. Lawrence Seaway Tolls

In the Great Lakes we recognize that cost sharing with states, local governments and industry will be with us to a much greater extent than it has been in the past. Discussion of user fees is not surprising to the Great Lakes water transportation community. For over twenty years, users of the St. Lawrence Seaway have paid the price of a user fee. We exist with a transportation system which has returned capital to the U.S. Treasury for each of its 22 years of operation.

For the record, I have included a listing of the operating expenses and revenues of the U.S. St. Lawrence Seaway Development Corporation for 1959 through 1980 along with the original and revised repayment schedules (Attachments D & E). Great Lakes Seaway users have returned to the U.S. Treasury over $62 million. We have not always been pleased about the Seaway tolls. Clearly, before any additional fees are imposed on this waterway system, the Committee should review the potential impact of additional tolls. As a footnote, the current repayment schedule, if paid in today's dollars, has a "present value" of approximately $40 million. This amount is less than spent annually on many projects now under construction and could easily be assimilated into the existing budget structure, should the Congress desire to do so.

Great Lakes Technology

One of the major findings in bills before this Committee is "the need for port improvements and shoreside facilities to provide more efficient export of materials, especially dry bulk materials." At this point, we in the Great Lakes can "blow our own horns." One of this country's best kept secrets is the efficiency of the Great Lakes/St. Lawrence Seaway system.

Dry bulk handling technology in the Great Lakes is simply the most advanced in the world. Grain, iron ores, taconite pellets, aggregates, cement and other dry bulk products are all being handled in self unloading vessels. Coal -- a major consideration for this age and the catalyst for the legislation before you -- is handled at up to 10,000 tons per hour -- loading and unloading. Cargoes are interchangeable. The world's largest self unloader fleet operates within the Great Lakes/St. Lawrence Seaway Transportation System. In Europe, where they are just beginning to consider the advantages inherent in self unloading vessels, advertisements are carrying pictures of Great Lakes vessels to promote the "new technology" which the Great Lakes has been using for fifty years.

The rail connections are in place. In Superior, Wisconsin, for example, the Midwest Energy Terminal unloads a 100 car unit train in just over three hours -- year around. At Toledo, over 5000 rail cars can be marshalled to feed the docks.

At Duluth, the 12th largest port in the nation for 1979 tonnages, one of the most modern grain elevators in the world has been erected by Cargill to serve the export market. While I haven't been there yet, I am told that people feel they should wear white coats because it so incredibly clean and technologically advanced.

A recently launched Great Lakes vessel is guided by eight rudders, assisted by bow and stern thrusters -- and can turn full about within its own length. More importantly, the self unloader can navigate the Coyahoga River in Cleveland without tugs.

This represents only a small portion of our advanced bulk handling technology in the Great Lakes, but I wanted to give you some idea of how advanced we are.

Coal from the Lakes

Because coal export is a major reason for hearings on port development and user fees, you should also know of the Great Lakes coal movements - which have been another well kept secret. Over the years, coal has always moved on the Great Lakes, both to serve domestic markets and to export to Canada. Between the years 1963 and 1973, Toledo annually handled more coal than any other U.S. port. All equipment used in that period remains available and operable today.

Coal is also moving in export to Europe from the Great Lakes, while at a lesser rate than we would like. The capacity for export is available at places like Erie, Conneaut, Ashtabula, Sandusky, Lorrain, Toledo, Chicago, and Superior. Space is available at other ports for the development of coal movements. Buffalo, New York and Burns Harbor, Indiana, already have offered their facilities for new developments and could be on line in six months following contracts. (Attachment C gives existing Great Lakes coal loading facilities.)

As reported in Seaway Review, 1981 winter and spring issues, sent to Members of this Committee, the Great Lakes coal connection is an alternative and can capatalize on our current and future export opportunity.

We view the St. Lawrence Seaway as an opportunity to work closely with our Canadian friends. For over 20 years, grain has been carried by Lake vessels to lower St. Lawrence River transhipment elevators for transfer to larger ships with excellent results for both U.S. and Canadian farmers and for our respective economies.

Coal is transhipped at Canadian port facilities built with Canadian funds. The combination of Great Lakes bulk handling technology, Canadian investment and a 50 foot channel (low tide) and shorter distances to Western Europe makes the Great Lakes alternative for coal a competitive opportunity for both U.S. coal exporters and European purchasers. The important element of transhipment -- for this Committee -- is that all coal transhipped at St. Lawrence facilities is originally mined from U.S. mines, by U.S. miners, hauled to U.S. ports by U.S. railroads and then shipped from U.S. Great Lakes ports to the Canadian transhipment locations.

U.S. produced coal also moves directly to Europe in Seaway class vessels for delivery to European ports unable to accept super colliers. Willem Daniels, representative of ATIC, the French coal import firm, reported earlier to the Merchant Marine and Fisheries Committee that ATIC shipped coal in vessels from 1,000 to 100,000 DWT during 1980. The smaller vessels, and the lack of waiting time at Great Lakes loading facilities, present a throughput-delivery equivalent in many cases to the East Coast using larger vessels.

As Seaway Review pointed out in the 1981 winter issue:

> "This is not to suggest that the Great Lakes/St. Lawrence Seaway System replace the East Coast or Gulf ports; they are needed as are the proposed improvements and modifications.
>
> It is intended to suggest, however, that the Great Lakes/St. Lawrence Seaway System can be an active and beneficial participant in the export coal movement. With the projected forecasts for export coal, there should be enough demand for all of our port facilities to participate. And logic would seem to dictate that the more efficiently and effectively we can transport our coal to foreign buyers, the lower the ultimate cost.
>
> And the lower the ultimate cost, the greater the likelihood that the international market will purchase more of our coal. In short, everybody wins if we utilize all of our port facilities -- the coal industry, the railroads, the ports, the shippers and the buyers.
>
> The System is now functional, it is experienced in handling coal, and the economic incentives are apparent."

North American Approach

This Committee has heard a great deal about United States port problems. The legislation you are considering is in direct response to the lack of U.S. deep draft harbors capable of handling 50 -55 foot draft 150,000 DWT super colliers. But you should know that North American ports on the St. Lawrence River can handle these large vessels and have been doing so for some time.

The Great Lakes/St. Lawrence Seaway Transportation System is an international, North American,total services system, operated jointly and cooperatively by the United States and Canada. Reaching inland 2234 miles, from the Gulf of the St. Lawrence River, the system's major export coal ports are closer to Northern Europe than U.S. East and Gulf Coasts coal handling ports, including Baltimore, Norfolk-Hampton Roads and New Orleans. The system competes in services and rates with other coastal ranges of the United States. More important for shippers, consignees and vessel operators, the many ports and stevedoring firms in the system both compete among themselves and cooperate within the system, thus providing the most economic and best services for customers.

An example of Great Lakes cooperation took place on July 2, 1981, when a Great Lakes Commission/Seaway Review organized and sponsored briefing was held for the European Community Coal Mission. Selected representatives from a U.S. railroad, a U.S. port, and a U.S. flag ship operator joined with a Canadian stevedoring and ocean vessel operator and another Canadian ship operator, to make a joint and coordinated presentation with GLC on behalf of the system. All of the Great Lakes representatives operate with their own balance sheet, all compete for their organizations, and all worked together at the meeting to assure that the customers would be economically and expeditiously served.

An outline of the detailed presentation to the European Community Coal Mission is attached for your additional reference (Attachment F).

Comments on Pending Port/User Charge Legislation

All of the foregoing serves to emphasize the importance of waterborne commerce to the Great Lakes States and to the Provinces of Canada with which we share this North American Asset. The Great Lakes Commission has carried on extensive correspondence and conversation with many affected groups and individuals on the subjects covered by the various member bills and the "Administration proposal" presented in H.R. 2959. The Commission has not, however, reached definitive positions on the provisions of the legislation.

We have identified a number of issues which we believe you must consider as you move forward in your analysis of port development issues. Not all of our concerns apply equally to each of the bills, nor do they necessarily apply to the bills you are considering today. However we recognize that all bills will have to be reconciled before enactment of any compromise and we wanted our concerns aired early.

1. Double charges for domestic freight. Application of charges directly by each port may cause domestic freight to incur a double charge -- one at the origin and one at the destination ports. This would be particularly true when connecting channel expenditures are allocated to ports for collection. This double charge may cause a price shift sufficient to make it more economical to import certain commodities than to use or own domestic sources. The example I have given earlier was for taconite pellets or iron ore.

2. Port legislation changes. Port authorities are generally established under State and municipal law, and they operate with limited authority. The collection of fees for the federal government in a cost recovery/user charge system could require amending legislation to permit ports to perform this function. Prior to any implementation, whether staged or total, the current enabling statutes for the various port commissions and port operating agencies should be reviewed to determine the overall impact on governmental structure. It would also be helpful if this Committee was able to ascertain the probability of the ports' enabling legislation being changed in sufficient time to permit uniform implementation of a new federal policy.

3. Private ports. Some ports have been constructed solely or essentially with permits under the Corps of Engineers' authorities. The construction, dredging, maintenance, operations of these port facilities is undertaken by private industry. There would appear to be no vehicle through which users of these ports could be charge a fee for use of the connecting channels.

4. Existing legislation. The locks at Sault Ste. Marie, Michigan, were originally constructed under a grant from the State of Michigan. The State operated these facilities for a number of years until, under the authority of the Rivers and Harbors Act of 1880, the Secretary of War was authorized to accept on behalf of the United States from the State of Michigan, "the St. Mary's Canal and the public works thereon, provided that the transfer should be made leaving the U.S. free from any and all debts, claims and liability, and that the Canal after the transfer should remain free for public use." While laws are made to be changed, this type of legislation and other similar legislation must be fully reviewed prior to implementation of a new user charge.

5. Northwest Ordinance of 1787. The Northwest Ordinance which established the territories northwest of the Ohio River included Article 4 relating to navigable waters: "The navigable waters leading into the Mississippi and the St. Lawrence, and the carrying places between the same shall be common highways, and foreever free, as well as to the inhabitants of said territory, as to the citizens of the U.S., and those of any other states that may be admitted to the Confederacy." Clearly, the drafters of the Northwest Ordinance expected that these waterways and any developments in the "carrying places" between the waters would be open to free passage. I am not sure what the process of amending the Northwest Ordinance is, or whether it governs our activities, but a review should take place prior to the enactment of a potentially conflicting law.

6. Canada to Canada movements. If the user fee collection for the Great Lakes connecting channels were to be allocated and assigned to the respective ports there would be difficulty in collecting for vessels/cargo which moves from ports in Canada to ports in Canada through U.S. operated and maintained waterways. A vessel moving from Thunder Bay, Ontario, to a transhipment point in Quebec would pass through the Soo Locks at Sault Ste. Marie, Michigan, the channels of the St. Mary's River, Lake St. Clair channels, and the Detroit River, all of which are operated and maintained by the United States. Some consideration would need to be given to affecting fee collection for these vessels, otherwise U.S. vessels/cargo traveling from Duluth/Superior to the same Quebec transhipment point will be less able to compete.

7. Potential impact on domestic trades of other nations. Corollary to the impact on the U.S. trade competitive position problem is the potential impact on the domestic trade of Canada. Although the St. Lawrence Seaway Development Corporation operated facilities are apparently excluded from pending legislation, the Great Lakes connecting channels and locks will not be. Therefore, any changes applied will affect the domestic trade of Canada. To avoid a North American international incident we suggest the following language be adopted:

> "That no tax, toll, fee or other user charge which is now or which may in the future be imposed upon the use of the navigable waters of the United States shall apply to any use of such navigable waters which regularly serve the domestic waterborne commerce of another country until such other country has agreed to the application of such tax, toll, fee or other user charge to its domestic commerce."

8. Judicial review. Some of the "fast track" proposals appear to remove all judicial review to the federal courts, even though one of the participants in any cost sharing/user fee/cost recovery agreement is a nonfederal entity. While we realize this is an effort to reduce delay, serious question regarding this procedure must be raised. State courts must retain primary jurisdiction in areas of State authority, including State authorized port authorities.

9. Impact on vessels/cargos not directly benefiting from improvements. Should vessels and/or cargos not profiting directly from or not requiring the port improvement be requred to participate in the cost recovery? If new charges apply to vessels not effectively served by the improvement they would likely be driven out of the port or possibly out of the trade.

10. Maintenance of existing projects. Both the "Committee bill" and H.R. 3977 call for the Corps of Engineers to establish a five year program for maintenance of ports and related facilities. The Congressional review process appears to provide a veto over the Administration in terms of maintaining or not maintaining an existing project, but it does not set priorities for maintenance. Priorities are currently established (finally) through the appropriations process. Some mechanism for establishing priorities should be created so that communities may be assured maintenance will be accomplished in order of national need

11. St. Lawrence Seaway debt. Some proposed legislation includes the Great Lakes but excludes facilities administered by the St. Lawrence Seaway Development Corporation. Currently users of the St. Lawrence Seaway are paying 100% of the operation and maintenance costs, including extraordinary maintenance due to contruction error (projected at $14 million). Users of the Seaway are also returning capital to the U.S. Treasury. Over $62 million has been returned to the Treasury by the St. Lawrence Seaway Development Corporation. If there is a new national system of user fees or tolls, especially one that grandfathers investment in existing facilities, will the $62 million be returned to the St. Lawrence Seaway Development Corporation, or to the users, or will the St. Lawrence Seaway Development Corporation and the Seaway remain a freestanding debt? It would seem fair that at least the past capital payments be returned to the SLSDC and the Congress appropriate funds to meet the extraordinary maintenance costs (required due to no fault of the SLSDC).

12. Strategic preparedness. The legislation, as introduced on behalf of the Administration appears to give no consideration to the national defense capabilities which ports contribute to the U.S. In the Great Lakes, this is of particular importance. During World War II, incredible volumes of cargos moved through the Lakes to support the national defense objectives. In addition to the cargos moved, I am informed that over 50 percent of WWII U.S. military and commercial ship production was accomplished in the Great Lakes. Prior to implementation of any user fee or cost recovery system, the full impacts on strategic military preparedness should be analyzed.

13. Transportation mode shifts. Implementation of user charge legislation whether on a national or port by port basis may change competition between the various modes of transporation, thereby dislocating regional economies. In the Great Lakes, we note that freight rates by other modes and from other seacosts vary with the seasons. When the Great Lakes are open and the St. Lawrence Seaway is competing, rates on the Gulf cost are lower than they are during the 3 1/2 months that the St. Lawrence Seaway is closed. Should user charges induce significant rate changes , changes in the transportation patterns would also be induced.

Summary

User charges presume that a "few" (a small group of the population) are receiving an unearned benefit from the larger population. To reduce the supposed windfall, the "few" are asked to pay for the goods and/or services which they receive. In this simple form, no one can effectively argue against some form of user charges or fees for the services the "few" receive. However, in areas as large as transportation and a sector of that area, namely water transportation, it is difficlut to determine who the beneficiaries truly are. It is less difficult to see that water transporation is being singled out first to "pay its own way." Are the beneficiaries the vessel operators who serve as a conduit or middleman in the process? Or, are the beneficiaries the ultimate consumers who purchase the products? Are the benefits of these waterways projects sufficiently focused so that we can identify the beneficiary?

In terms of "beneficiaries" paying,the Great Lakes Commission is compelled to raise questions in several water related areas. For example, will publicly financed hydroelectric power users be asked to pay higher rates? Will irrigation water beneficiaries be requested to pay the full cost of their water supply? In the transporation area, will railroads be asked to reimburse the Treasury for employee retirement program contributions? What about future operating grants to Conrail?

If the user pay concept is to be applied universally, when will the other proposals be presented? Will these other proposals be implemented simultaneiously or sequentially? And how will these affect our national economy and our respective regional economies?

The Great Lakes Commission, its member States, and the Great Lakes water transportation industry have traditionally opposed cost recovery/ user fee programs. My recent meetings with Great Lakes ports and my Commissioners indicate that there is no change in that basic position. The Great Lakes industry has paid a high price financially and in equity for St. Lawrence Seaway tolls. there is, however a willingness to look at new proposals, so long as equity is an objective.

The Great Lakes Commission made several determinations during its May 1981 Semi-Annual meeting regarding cost recovery and user charges plans now being considered. They are:

1. That there is a historic role of the federal government in facilitating maritime commerce;

2. That the Great Lakes ports, shippers and vessel operators in international and domestic trade have experienced the impacts of cost recovery programs for over 20 years since the St. Lawrence Seaway was opened (as mentioned earlier).

3. That application of certain types of user fees could lead to regional economic dislocations, induce unwanted changes in the national transportation system, and negative effects for international trade.

Recognizing the difficulties that these impacts could cause, the Great Lakes Commission called upon Congress for a full economic analysis of proposed cost recovery/user fee systems with participation by all affected parties to determine:

1. Regional economic dislocations, if any.

2. Transporation system changes, including modal shifts, which may be induced by varying types of fee collection systems.

3. National economic effects, including changes in levels of exports or imports which may inadvertantly occur through application of various levels and types of user fees.

The Great Lakes Commission also urged that these analyses be performed and reported in advance of any legislative or administrative action.

Mr. Chairman, the Great Lakes Commission would be pleased to answer any questions you may have now or later in writing. You may be assured we will keep you and your colleagues informed as we develop additional detailed positions on related legislation.

Attachment A

U. S. ARMY ENGINEER DISTRICT, DETROIT
CORPS OF ENGINEERS
477 MICHIGAN AVENUE
DETROIT, MICHIGAN 48226

2 MARCH 1981

COMPARATIVE STATISTICAL STATEMENT OF LAKE COMMERCE PASSING THROUGH THE CANAL AT SAULT STE. MARIE, MICHIGAN FOR THE SEASONS OF 1979 AND 1980

Items		Total traffic for Season 1979	Total traffic for Season 1980	Increase or Decrease Amount	Percent Inc	Percent Dec
Vessel passages	Number	12,872	11,247	1,625		13
Cargo carriers	Number	9,050	7,576	1,474		16
Noncargo carriers	Number	3,822	3,671	151		4
Lockages	Number	11,069	9,647	1,422		13
Passengers	Number	156,490	153,611	2,879		2
Freight	Short tons	108,801,101	96,284,514	12,516,587		12
Wood Products						
Pulpwood, woodpulp, paper		49,240	53,745	4,505	9	
Vegetable Products						
Wheat		13,609,812	17,675,710	4,065,898	30	
Barley		4,034,101	2,726,997	1,307,104		32
Oats		274,678	399,317	124,639	45	
Corn		1,424,655	1,166,457	258,198		18
Rye		172,916	533,524	360,608	209	
Flaxseed		342,723	246,618	96,105		28
Soybeans		83,447	31,624	51,823		62
Sunflower seed		1,464,515	1,431,353	33,162		2
Mill products, screenings		950,658	780,228	170,430		18
Mineral Products						
Iron ore		69,678,802	55,241,832	14,436,970		21
Mfd iron, steel and pig iron		270,928	250,637	20,291		7
Scrap iron		63,351	72,266	8,915	14	
*Stone		2,043,851	1,626,899	416,952		20
Cement		822,507	562,040	260,467		32
Coal		10,514,645	10,326,863	187,782		2
Potash		—	966,915	966,915	—	
Salt		—	231,996	231,996	—	
Nonmetallic minerals, mfrs.		304,285	—	304,285		100
Petroleum Products						
Gasoline		346,501	312,753	33,748		10
Fuel oil		847,456	760,037	87,419		10
Miscellaneous merchandise		1,502,030	886,703	615,327		41

*Includes broken stone, gravel and sand.

The United States Canal was opened 24 March 1980 and closed 31 December 1980; season of 283 days.

NOTES:
Preliminary report - subject to revision.
In reprinting - please credit source.

ROBERT V. VERMILLION
Colonel, Corps of Engineers
District Engineer

Attachment B

U. S. ARMY ENGINEER DISTRICT, DETROIT
CORPS OF ENGINEERS
477 MICHIGAN AVENUE
DETROIT, MICHIGAN 48226

27 FEBRUARY 1981

STATISTICAL REPORT OF LAKE COMMERCE PASSING THROUGH THE CANAL AT SAULT STE. MARIE, MICHIGAN FOR THE SEASON OF 1980

Items	Westbound	Eastbound	Total	Season Average Prev 3 Years
ood Products				
Pulpwood, woodpulp, paper	—	53,745	53,745	71,342
egetable Products				
Wheat	—	17,675,710	17,675,710	15,338,657
Barley	—	2,726,997	2,726,997	3,596,308
Oats	—	399,317	399,317	480,344
Corn	—	1,166,457	1,166,457	1,034,027
Rye	—	533,524	533,524	133,682
Flaxseed	—	246,618	246,618	274,830
Soybeans	—	31,624	31,624	27,816
Sunflower seed	—	1,431,353	1,431,353	1,096,672
Mill products, screenings	—	780,228	780,228	746,478
ineral Products				
Iron ore	112,648	55,129,184	55,241,832	60,292,129
Mfd iron, steel and pig iron	22,303	228,334	250,637	289,360
Scrap iron	—	72,266	72,266	89,618
*Stone	1,609,915	16,984	1,626,899	1,978,011
Cement	562,040	—	562,040	759,445
Coal	4,085,526	6,241,337	10,326,863	8,883,470
Potash	—	966,915	966,915	—
Salt	231,996	—	231,996	215,108
Nonmetallic minerals, mfrs.	—	—	—	—
etroleum Products				
Gasoline	265,569	47,184	312,753	374,788
Fuel oil	733,650	26,387	760,037	891,173
iscellaneous merchandise	367,168	519,535	886,703	1,324,726

Summary

essel passages	Number	6,456	4,791	11,247	12,464
assengers	Number	135,010	18,601	153,611	175,970
reight	Short tons	7,990,815	88,293,699	96,284,514	97,897,984

Includes broken stone, gravel and sand.

OTES:
Preliminary report - subject to revision.
In reprinting - please credit source.

ROBERT V. VERMILLION
Colonel, Corps of Engineers
District Engineer

Attachment C

Coal loading ports on the Great Lakes

Port Operator (Owner)	Coal Origin	Destination & Loading Equipment & Speed	Ground Storage	Berths	Length	Draft	Max. Ocean Vessel Size	Rail Connecti
Ashtabula, OH (L. Erie) Lower Lake Dock Co. (Conrail)	W. PA W. VA S. OH KY	Canada (some dom) Conveyor, 7000 tons/hr.	1,500,000 ST	1	1200'	27'	*730x75'6"x26 *	Conrail
Conneaut, OH Pittsburgh & Conneaut Dock Co. (U.S. Steel)	PA W. VA MD, OH VA	Canada, conveyor, 7700 tons/hr.	6,000,000 ST	1	1250'	28'	*730x75'6"x26	Bessemer & Lake Erie
Erie, PA* Codan (Erie-W. PA Port Auth) *Temp Fac.	W. PA	Domestic (Mich) 2200 tons/hr. two feeder conveyor into radial stacker main conveyor	20,000 ST	1	1400'	7'	*730x75'6"x26	Trucks Initially Conrail serves port
Sandusky, OH (L. Erie) Lower Lake Dock Co. (Norfolk & Western Rwy)	PA, W. VA, KY VA	55% Canada, 45% domestic; 3500 tons/hr., car dumper	850,000	1	3400'	25'	*730x75'6"x26	Norfolk & Western
S. Chicago, IL (L. MI) Rail-to-Water Transfer	W. KY N. IL N. IN	Domestic/Can. 5000 tons/hr. 2 traveling towers	0 - direct transfer from railcars	2	(N) 735' (S) 726'	27'	730x75'6"x26	Belt Railway Co.
Superior, WI (L. Superior) ORBA/REISS	MT	Domestic 8500 tons/hr. Conveyor	12,000,000	1	1200'	27'	*730x75'6"x26	Burlington Northern
Toledo, OH (L. Erie) Chessie System Chessie System	W. VA KY, VA OH	Domestic (Some Can) 4500 tons/hr. Conveyor	0 - Direct transfer from rail car to boat	1	1780'	28'	*730x75'6"x26	Chessie
W. Side #2	W. VA, KY, VA, OH	1800 tons/hr. car dump	"	1	1993'	27'	730x75x26	Chessie
W. Side #3	W. VA KY, VA, OH	1800 tons/hr. car dump	"	1	1123'	27'	730x75x26	Chessie
Canadian St. Lawrence Transshipment River Ports								
Contrecoeur, Can. (St. Law.) Iron Ore Co. of Canada	US coke Breeze	Europe, some Can. local use 2-Wellman Towers Grab Bucket 1000 tons/hr.	66,000 active unlimited backup storage on 475 acres	1	950	37'	850x115x35	CNR
Quebec City, Can. (St. Law.) St. Lawrence Stevedore Co. (Quebec City)	US Coal	Europe 2000 tons/hr. Grab Bucket	400,000	2	800	50'	958x128x42	CNR & CPR (CNR serves terminal not used for coal)

*Port can accommodate maximum lake vessel size of 1000'x105' for upper lakes domestic tr

Attachment D

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

Expenses, Revenues & Debt Retirement
1959 - 1980

	Operating Expenses			Revenues	Payments to U.S.
	Operation & Maintenance	Administration	Total		Retirement of Revenue Bonds
1959	690,067	261,166	951,233	3,204,494	2,150,000
1960	887,026	337,874	1,224,900	3,115,040	1,908,235
1961	958,614	350,381	1,317,995	3,407,461	2,115,000
1962	1,084,740	370,732	1,455,472	3,700,259	2,175,000
1963	1,124,493	376,082	1,500,575	4,443,683	2,797,385
1964	1,251,250	400,094	1,651,344	5,591,401	3,950,614
1965	1,310,664	455,084	1,765,748	6,371,814	4,550,000
1966	1,430,711	452,540	1,883,251	7,114,885	5,200,000
1967	1,549,677	445,821	1,995,498	6,109,607	4,050,000
1968	1,580,873	509,103	2,089,976	6,815,966	4,500,000
1969	1,716,484	529,437	2,245,921	5,913,975	2,750,000
1970	1,827,712	628,928	2,456,640	6,998,009	3,800,000
1971	2,130,341	623,166	2,753,507	7,472,942	3,900,000
1972	2,593,609	712,447	3,306,056	7,502,242	4,000,000
1973	2,757,993	722,623	3,480,616	7,739,411	2,500,000
1974	3,122,191	827,191	3,949,382	5,981,524	600,000
1975	3,420,789	901,984	4,322,773	6,313,460	2,000,000
1976	3,572,494	962,352	4,534,846	7,299,960	2,000,000
1977	4,157,662	1,031,388	5,189,050	8,638,314	1,000,000
1978	4,188,666	1,148,760	5,337,426	9,941,983	2,500,000
1979	5,101,927	1,234,788	6,345,715	10,995,988	2,000,000
1980 est*	5,900,000	1,400,000	7,300,000	10,000,000	2,000,000
	52,357,983	14,681,941	67,057,924	144,602,418	62,446,234 24,800,000 Debt 37,600,000 Int.

*Estimated by GLC based on inflation, and construction cost indicators.

Prepared by: Great Lakes Commission
2200 Bonisteel Blvd.
Ann Arbor, MI 48109

Attachment E

Saint Lawrence Seaway Development Corporation
Proposed Bond Repayment Schedule
($-000's)
Debt Outstanding $108,576 (1/1/81)

Maturity Date	Original Schedule	1978 Revised Schedule	1981 Revised Schedule
1981	$ 4,000	$ 3,000	$ 2,000
1982	4,000	5,000	2,000
1983	5,000	5,000	2,000
1984	5,000	5,000	2,000
1985	5,000	5,000	2,000
1986	5,000	5,000	9,500
1987	5,000	5,000	9,000
1988	5,000	5,000	8,500
1989	4,000	5,000	8,000
1990	2,500	5,000	8,000
1991	2,500	5,000	8,000
1992	2,500	5,000	7,500
1993	2,500	5,000	7,500
1994	2,500	5,000	6,000
1995	2,500	5,000	6,000
1996	2,500	5,000	5,000
1997	2,500	5,000	4,000
1998	2,500	5,000	3,500
1999	2,500	5,000	2,500
2000	2,500	5,000	2,000
2001	2,500	5,000	1,000
2002	2,600	3,600	600
2003	2,299	225	225
2004	9,477	225	225
2005	6,500	225	225
2006	2,500	225	225
2007	3,700	225	225
2008	4,400	225	225
2009		225	225
2010		225	225
2011		250	250
2012		200	200
2013		126	126
		108,976	108,976

Based on current interest rates, inflation, and other factors, the 1981 Revised Schedule is presumed to have approximately the same present value as the 1978 schedule and the original schedule, approximately $40,000,000.

ATTACHMENT F

Canada Steamship Lines Inc.

July, 1981

EXPORT COAL

THE GREAT LAKES ALTERNATIVE

- Potential to serve the four major North American coal production areas
  - Appalachian (Ohio through Kentucky)
  - Midwest (Indiana & Illinois)
  - Great Plains/Powder River Basin/Wyoming & Montana
  - Western Coal (Alberta primarily)

- Established infrastructure presently carrying over 40 million tons of coal per year

. Lake Erie (Appalachian)	35 million
. Midwest (Chicago)	2 million
. Great Plains (Midwest Energy Terminal)	3 million (Detroit Edison)
. Western Canadian (Thunder Bay Terminal)	3 million (Ontario Hydro)
	43 million

- Docks
  - 8 coal docks
    - 84 million capacity
    - 44 million throughput

    40 million additional capacity
  - very efficient loading experience - 12 hours
  - minimal-waiting time

- Vessels
  - 240 vessels with 5.5 total million DWT capacity
  - fleets carry 200 million tons per year

- Grain Trade Route
  - Pattern in existence for years - Canadian and American grain
  - 15 to 20 million tonnes per year going to world markets
  - More reliable and cheaper than Mississipi, East Coast and West Coast

- Closer to Europe - Seven Islands/Canso
  - 4 days closer than East Coast
  - 13 days closer than Gulf
  - 45 days closer than West Coast

- Larger Vessels
  - St. Lawrence ports handle larger vessels
  - 100,000 to 150,000 DWT vs 50,000 to 100,000 DWT in U.S. East Coast and Gulf Ports

- Lack of Delays
  - St. Lawrence system and infrastructure capable of handling 5 million tons of export coal without delays

- St. Lawrence Ports
  - St. Lawrence Stevedoring - Quebec and Montreal
  - Iron Ore Company of Canada - Contrecoeur and Seven Islands
  - comparitively little investment and 9 month season

WATER RESOURCES POLICY ISSUES

MONDAY, AUGUST 17, 1981

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Water Resources,
Great Falls, Mont.

The subcommittee met in the Heritage Inn, Hon. James Abdnor (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator Abdnor. The subcommittee will come to order. I want to welcome all of you to the hearing this morning. This is a continuation of a number of hearings that we've been holding over the last 2 weeks and we are starting the third week.

They've been very informative, very helpful. We have the different issues of concern of water as we went to area to area. Today we are going to be focusing on the issues relating to waterway user fees and the transportation of agricultural commodities, as well as overall water policies.

I am pleased to be here in the Big Sky country. Montana is truly a beautiful State and I am looking forward to seeing more of it again today, although perhaps it is more well known for the breathtaking mountains, I also know that Montana is a major agricultural State. That's really why we are here today.

We want to address your concerns about the impact users fees are going to have on transporting agricultural products. I share the concerns of many of the people, including people in South Dakota, because we're also highly dependent on waterways for transportation of our agricultural products, too.

And I am hopeful that you will discuss alternative proposals as well as your concerns. We must not delude ourselves. We do not have the Federal dollars to build all needed projects. It is unlikely that the Federal Government will continue to subsidize almost all waterway maintenance, These are simple, hard facts but true. And the answers are not easy.

I am not yet convinced that the administration's proposals offer the best solution but I believe we can work together to develop a better answer. I look forward to hearing your suggestions.

It's a real pleasure for me to share a podium with Senator Baucus, a member of the Water Resources Subcommittee. Senator Baucus has shown a great deal of interest in this issue. He and I were both serving in the House of Representatives when we met. He was then and continues to be concerned about the residents of

Montana. He and I are both concerned about the small busnessmen and farmers in both our States.

In am pleased that we have the opportunity to address this issue together, to work together for a solution to these complex problems which affect not only the waterways but the backbone of our national economy, the agriculture industry.

And Senator Baucus, do you have any statements you would like to make?

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator **Baucus**. Thank you very much. Mr. Chairman. I want to take this chance to give a very cordial and hearty Big Sky welcome to you.

Senator **Abdnor**. Thank you.

Senator **Baucus**. I am sure most of you know Senator Abdnor is chairman of this Senate subcommittee. He represents the State of South Dakota. Fortunately we have a chairman of that subcommittee who comes from a State which is, in many ways, similar to our State of Montana, basically an agricultural State. And we, therefore, from Montana are quite fortunate to have a common interest.

In recent years, Montana has unfortunately lost the opportunity for competitive rail service. We now have only one railroad. And we now have only a total of two options for moving Montana grain to western ports for export. That is the Burlington Northern Railroad and the truck-barge alternative on the Columbia.

I think it's important, frankly, that we maintain those two options because whenever there's no competition or very little competition, it's been my experience that the public generally suffers.

The Columbia River system, which physically extends to eight Western States, including Montana, has a much longer reach economically speaking. It has played a central role in the development of the Pacific Northewest, as well as other Western States, and it provides some four dozen private and public port facilities in 1978. Forty-two million tons of cargo were carried on river systems. The growth in traffic was primarily growth occurring in grain. The port of Lewiston, Idaho, moved hundreds of thousands of tons of products in 1979 and over 90 percent of that tonnage was grain, a significant portion coming from Montana, South Dakota, and Wyoming.

In my judgment, the proposed increase in the waterway user fees raises serious questions which I think must be answered before significant changes in the present fee level are made. I'm anxious to review, for example, the waterway user fee suggestions prepared by the administration under 205 Waterway Inland Act. The study is to be available on schedule at the end of September.

I believe we in this Congress have wisely decided to wait until that study is available for careful review before advancing waterway user fee increases into law.

Mr. Chairman, the concerns of the proposal to increase the user fees are numerous and they are important. For example, will the imposition of full cost recovery harm competitive operation in this region? Will higher water user fees unduly burden our grain farmers, undermine the promising grain trade in our balance of payments? Who will pay the increases in the waterway user fees? Will higher fees discourage productive routes that might otherwise improve our waterways by removing bottlenecks, reducing congestion, and increasing the capacity and efficiency? What will be the longer term impact of shallow- and deep-draft fees on projects of coal exports?

In short, Mr. Chairman, will higher waterway user fees promote agriculture products for exports at fair and reasonable rates?

The answers to these questions are, I hope, answers that we will be able to determine in today's hearing and we hope to pursue those questions in the days and months to come.

I am very pleased there are so many familiar faces in the audience, familiar Montanans who are very knowledgeable about this question and hopefully they can provide us with help and guidance so we can reach the proper result.

Again, Mr. Chairman, thank you for coming to Montana. I'm sure your time spent here will be very worthwhile.

Senator **ABDNOR**. I'm sure of that, Senator Baucus. Thank you. You have certainly raised the point we want to cover today. Hopefully we will get some answers for, as I said, we have had a number of hearings. This particular subject of user fees was well covered in St. Paul, Minn., the other day. We've been in different parts of the country and there are different issues wherever you are. Out in the Midwest where they are dependent upon water as a carrier, this issue is certainly of vital importance.

With that, I think we'll start right out with our first witnesses, Mr. Craig Bell, executive director of the Western States Water Council. And I'm going to also call Mr. Leo Berry, who's director of the Department of Natural Resources in Helena, Mont.

Gentlemen, we certainly welcome you to the committee and I'm sure this is old stuff to you fellows. If you have written statements, just let me assure you at the outset the entire statements will be made part of the permanent record. If you care to summarize, or however you care to proceed, you go right ahead.

Who wants to go first? Mr. Bell? Mr. Bell, you go ahead.

STATEMENT OF D. CRAIG BELL, EXECUTIVE DIRECTOR, WESTERN STATES WATER COUNCIL

Mr. **BELL**. Mr. Chairman, I appreciate the opportunity to testify on behalf of Western States Water Council. We are an organization consisting of representatives appointed by the Governors of 12 Western States. We are concerned with the broad range of water policy issues.

The primary focus of this hearing is water users fees and I will direct my remarks to an overall water policy.

Let me also assure you I will summarize the council's positions. I have a fairly lengthy written statement, but I will summarize that.

I should note also in preface that I think a basic theme of my remarks will be that Federal involvement in traditional State responsibilities in the water resources area is not necessarily in the national interest. Issues in water policy must represent the rights of States to manage water resources and to administer their own water laws.

With that preface, let me address a few particular issues of concern to the Western States Water Council. These are issues also, I think, which are important to this subcommittee, in particular in terms of water resources policy.

First of all, in the area of water rights, you'll remember that in 1979 the solicitor of the Interior Department agencies issued an opinion concerning Federal water rights. In that opinion, he brought up the new and, in our view, legally suspect theory of nonreserved rights under which Federal agencies, including the Interior Department, could claim water rights without basis in the reservation doctrine which is issued in the case law and without any reference to substantive or procedural law.

We read the law much differently than the solicitor and addressed our views. There was a great deal of feeling not to implement the opinion as a matter of policy. We also resolved to develop legislation which would resolve that issue in a permanent way. I should also advise the subcommittee, however, that in the interim the new administration is in the process of reviewing the former case and opinion to see whether it is appropriate, that their view of the law is also different than the former solicitor's. And we may be expecting a new opinion on that issue. I think I would say on that issue that if traditional congressional deference to State water law is to be held, then the assertion of nonreserved Federal water rights must be terminated.

Interference with States' rights to allocate water is also a concern with implementation of section 404 of the Clean Water Act. I'm sure that you Senators are familiar with the corps' implementation of this act. We feel that the implementation of 404 has been a violation of the intent of Congress. It's allowed the Federal Government to subordinate State rights to restrict water. The council resolved to seek a retraction of the position set forth by the corps that it may base permit decisions on the fact that water is withdrawn from the water source and adopt the position that such questions are more properly addressed through State water managment allocation decisions. In the event that such a retraction was not forthcoming, the council resolved to seek congressional action to assure that 404 permits do not include any condition that conflicts or fails to recognize the actions of the State to authorize or allocate diversions of water.

On January 15 of this year, the council further adopted specific legislative language to address this problem. The essence of it would provide that a permit not be denied nor conditions required therein for any reason based on the effects of diversion, storage, or consumption of water.

We also adopted some language recommending that there be an effective assumption of 404 at the State level, that any implementing regulations provide full flexibility at the State level to design and implement 404 programs.

That same basic theme in terms of promoting State water rights are also behind our position concerning the Endangered Species Act. The council determined that the Endangered Species Act, as previously interpreted, is contrary to congressional intent and it's thwarted the effective State water resources development and threatens to continue to do so in the future. Therefore, we urgently request Congress and the administration carefully reconsider the provisions of the act and seriously consider the problems and recommendations identified by the council for amending the act and improving its administration. These recommendations, and they are specific recommendations to both the act and its implementation, they relate to the listing of species, designation of critical habitat, recovery, State water law, interagency cooperation, jeopardy opinions, biological assessments, and the exemption procedure.

We commend this position for consideration by the Senate and Congress as it considers the Endangered Species Act in this session.

The council also has adopted a position at our most recent meeting in Coeur d'Alene, Idaho, regarding Senator McClure's legislation S. 761 regarding safety of dams. The council endorses many of those concepts but urges amendments be considered. Collectively the Western States Water Council does not feel strongly there's a need for Federal legislation but if legislation is forthcoming, we think it's clear Federal initiatives not usurp States rights. States have dam safety programs and that fact should be recognized in legislation. We have some specific recommendations which are included and attached to my statement. The position addresses provisions of the bill relating to size of dams, the right of entry, State assistance programs, and several other positions of the bill which we would recommend you consider.

The council has also been concerned for a good many years concerning reclamation law. I'm sure you are aware of the 1902 act in terms of water deliveries from Federal reclamation projects. The council believes the 160-acre limitation was adopted then in light of the existing agricultural conditions and as a means of encouraging and establishing family-sized farms without allowance for changes in farm technology and economics which have transpired in the meantime. The council has resolved a need for a reasonable size of farm unit that may receive water deliveries from Federal water reclamation projects under conditions relevant and appropriate to each respective area of the Nation in order that such units may be operated efficiently and maintain a competitive position in the agricultural economy of the United States.

To achieve these objectives, the council has addressed a number of bills introduced in the previous sessions of Congress. We are again in the process of reviewing H.R. 4265 which has been introduced by Congressman Lujan, and other bills which may be introduced that seek to achieve our objectives on this issue.

In terms of cost sharing, the council has not addressed the provisions of S. 621. The council considered similar legislation in the previous session of Congress. At that time the council expressed concerns and reservations regarding the cost sharing proposals advanced by Senators Domenici and Moynihan. The council urged that there be a comprehensive, meaningful and accurate evaluation of cost sharing proposals before any new legislation is enacted. Specifically the council urged a joint Federal-State review of cost sharing focusing on the magnitude and significance of existing non-Federal cost sharing contributions and analysis of cost sharing for smaller intrastate water projects, analysis of adverse impacts that front-end cost sharing may have upon State and local governments in contrast to existing cost sharing mechanisms, and an analysis of the general mechanisms available to the States to raise their share of any cost sharing proposals. The council expressed its readiness to participate in such a joint Federal-State review examining those basic questions.

The council also has not adopted a position with respect to S. 1095 introduced by the subcommittee chairman and other such proposals advanced in the House, such as H.R. 3432. We've also not adopted a position with respect to the administration's proposal for an office of water policy. However, we did provide Senator Abdnor with a letter earlier this year noting that the Water Resources Council has fallen far short of its goal in the coordination of water resources planning at the Federal level with a reasonable degree of consistency in planning programs. We suggested at that time some mechanism is needed to achieve these purposes, but a decision as to the form of that mechanism has not yet been decided upon by the Western States Water Council.

However, with respect to title II River Basin Commissions, we said we supported the continuation of such commissions on a voluntary basis where the State thinks that's a useful and effective means for achieving water resources planning in the region. We oppose the imposition of across-the-board commissions which will cover the Nation associated with any implicit or explicit sanctions to do so.

With respect to the future of title III State grant programs, the council's position advised that, should Congress decide to continue funding for this program, it's imperative that such funding be provided in a reasonable and timely manner from year to year. The continuity in the amount of funding was deemed much more important than the amount of funding.

The council over the years has adopted a number of positions with respect to amending the Water Resources Planning Act. I've attached those positions to my testimony for the subcommittee's reference.

I conclude just by expressing appreciation to have the opportunity again to testify on these issues. I'll be happy to address any questions you may have.

Senator ABDNOR. Thank you, Mr. Bell. Before we go into questions, I think we'll have Mr. Berry give his statement. Then we can ask you questions jointly.

STATEMENT OF LEO BERRY, JR., DIRECTOR, MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

Mr. BERRY. On behalf of the State of Montana, I'd like to offer also our welcome to the Big Sky State.

We received the invitation from Senator Baucus, which was kindly received, that you wished to hear our views on the State's water policy and our views on Federal water policy.

We felt it important we ought to be here. We hope not to take too much time away from your meeting on user fees. The State's position will be handled by Panel No. 2.

I am the director of the Department of Natural Resources and Conservation, which is the State agency responsible for water planning and management in the State. And with that background, I'd like to make a few comments regarding the national water policy.

In 1972, Congress passed the Federal Water Pollution Control Act requiring, among other things, that water quality management plans be developed for all basins of the country as part of the national goal to achieve water quality that would permit swimming and fishing in all rivers by 1982. In Montana, as in most other States, these section 208 plans were directed by the health agency in the individual States. Water quality planning, on the other hand, was being handled by the agency responsible for water rights and administration. That was true in Montana, as well. Water quality planning was considered long term and low key with a rather small staff supported in part by an average of $60,000 under title III grants. Contrast this with the four water quality planning efforts in Montana which were short term, high intensity and funded with about $1 million a year. Unfortunately, neither Congress nor the EPA provided any incentives or requirements that the two planning programs be integrated. While it might be argued that the State should have taken the initiative to demand this coordination, the short fuse on section 408 plans, the relatively small staff for water quality planning and the State's biennial programing and budgeting effectively combined to preclude this. The end result is a federally mandated water quality planning that failed to recognize the State's traditional role in water allocation and management.

Another section of Public Law 92-500 required the Corps of Engineers to establish a permit system for dredge and fill operations in navigable rivers. By virtue of a lower court decision, the definition of navigable waters was changed, thus extending the corps' authority for section 404 permits. Through regulations, the corps adopted a public interest requirement that allows for the conditioning of section 404 permits to specify minimum streamflows without regard to the State allocation procedures. Further, the corps has proposed revisions to the regulations which would inject water conservation provisions into the section 404 permits. Water rights administration in Montana is a public process subject to hearings and court action. Being on site, it is the best position to determine what is in the public interest. In addition, Montana water law has a provision rather unique to Western States and possibly throughout the country that provided for the establishment of instream flows to maintain aquatic life, support recreation, and protect and enhance water quality. It would appear that the corps section 404 permit process has a great potential to circumvent Montana procedures, thereby usurping State's authority in water rights administration.

Development of Montana's Fort Union coal reserves to this time has been moderate. However, as the future energy demands grow and the Nation moves toward energy independence, it is anticipated that development of these reserves will expand significantly. If this occurs in the form of coal conservation, demands on the State's water resources will be of equal or greater significance. A recent report indicates that the Environmental Protection Agency currently has underway a self-described unprecedented effort to provide integrated environmental guidance for synfuels and to give the synfuels industry special attention in permitting an environmental review. This effort is intended to produce a series of pollution control guidance documents to serve as the basis for developing a total environmental protection strategy—air, water, and land. Montana and the other affected States must adequately be included in the development of the synfuel pollution control guidelines and the proposed environmental protection strategy in order to insure that EPA proposals do not violate or conflict with substantive and procedural State laws concerning resources and the major facility siting.

For many years, Federal-State regulations involving water regulation and management have been tedious at best. More specifically, the assertion of Federal reserved water rights has generated considerable uncertainty and poses a potential threat to the exercise of water rights vested in the State law. In recent years, tension over this issue increased dramatically, largely as the result of policies established by the Federal executive branch, primarily through the Justice Department and the Interior Department. In 1979, the Montana Legislature established a statewide program which required the filing of all claims that existed prior to July 1, 1973. A statewide adjudication program is not all that uncommon in the West. What is uncommon about this program is a provision that empowers the State commission to negotiate the settlement of water claims with these Federal agencies and Indian tribes that are unwilling or unable to submit their claims through the adjudication process. While many Federal agencies are preparing water claims for the adjudication process, formal negotiations have been established by action of the Department of Agriculture and the Department of the Interior. Of the seven Indian reservations in the State, two are in active negotiation and a third needs only to officially designate a negotiator in order to proceed. Another tribe started negotiations and abruptly terminated them but now has indicated a willingness to reconsider. I call this to your attention because this is an unprecedented and yet untried approach to solving the problems attendant with reserved water rights.

Preliminary studies have shown that there's a significant potential for developing new or additional hydropower at many existing Federal and State dams. Recently, there has been a rash or preliminary permit applications filed for these dams with the Federal Energy Regulatory Commission by private companies often in conjunction with local units in government which are induced by promises of a percentage of the revenues from the projects. If any of these projects move on to development, there is a real concern about the liability of the local governments involved, should the private companies dissolve for any reason. Of equal concern are the unclear, often nebulous policies of FERC in processing these applications. It has been reported that FERC has failed to notify the State or Federal dam owners about the applications, that no preference or priority is given to the owners of the dams, that there is a bias against State involvement in hydropower development and even that FERC can give private developers the right of eminent domain to condemn and take over any State-owned or financed reservoir, regardless of its authorized purposes. This points to a tremendous need for policies that would provide proper notification to a dam owner, would require concurrence by the affected State or Federal agency before issuing a permit or license that should also give a preference to the dam owner over all other applicants if the applications are of equal merit, and deny the power of eminent domain to any party proposing to develop hydropower at a State or federally owned dam.

Many of the foregoing issues are being addressed through various pieces of proposed legislation now under consideration by your committee. We are supportive of the National Water Resources Research and Planning Act of 1981, S. 1095, introduced by Senator Abdnor and approved by the committee.

At the very least, S. 1095 would provide the coordination and consultation necessary to develop a truly national water policy. While the Secretary of the Interior made convincing arguments about the high-level attention that a Cabinet council on natural resources and environment could give to the development of national water policy, the concept seems flawed by its failure to provide a mechanism for reflecting State, local, and regional views. Promises emanating from the Department of the Interior to provide a full and open dialog with the States are losing credibility because of recent actions to develop—abolish the water resources council, termination of the river basin commissions, decimate the title III funding and refuse Federal financial support for water resources research, all of this having taken place without any consultation with the States. S. 1095 would also provide an orderly transition for these programs which are crucial to Montana where water resources budgets for the biennium of fiscal years 1982 and 1983 were developed in anticipation of these programs continuing and approved by the legislature.

Concerning the question of who pays for the projects, who pays for the development, nearly everyone agrees changes in the procedures are necessary if water development is to move ahead to meet the ever-increasing demands. The proposed National Water Resources Policy and Development Act of 1981 presents an innovative approach to the issue. S. 621 proposes, among other features, a block grant program with funds to be allocated to the States for water development on the basis of population. These funds could be used for water projects identified from the priorities list submitted by the Governor. However, the State would be required to pay 25 percent of the cost of the project and 50 percent of the operations and maintenance costs.

While this is commonly referred to as cost sharing, it could be more appropriate to term it finance sharing. Traditionally, Federal projects have been financed by funds appropriated by Congress with some requirements for easement, rights-of-way, et cetera, to be paid by the local sponsor. Costs of the projects were then returned to the Treasury from revenues produced by the project. S. 621 seems to require the State to provide 25 percent of the financing up front. This could place an undue burden on many States. A more equitable approach might be to determine the share requirements from a range based on project beneficiaries. If all the benefits accrued to the State, a larger share might be required. If the benefits accrued to another State, a smaller share would be required. An example might be a multiple-purpose project that provides for flood control, irrigation, recreation, and provide hydropower where the host State derives most of the benefits of irrigation and recreation, but a downstream State benefits more from the flood control and hydropower. Another approach would be one that has been used before to put a cap on the State share based on a percentage of the State's annual revenue.

Montana is not at all adverse to sharing the cost of financing of water projects as evidenced by actions taken by our last legislature which created a main water development program funded by 30 percent of the interest from the resource indemnity trust fund. This program will provide loans and grants for water projects and activities sponsored by State agencies, local governments and private individuals. Proceeds from the coal severance taxes will provide water development grants to State agencies, local governments and political subdivisions and may be used to back up to $5 million worth of the general obligation wire development bonds to finance loans. This legislation also created a coal severance tax bonding authority to finance larger projects with up to $250 million worth of the bonds to be repaid by project revenues and backed by the Montana Permanent Coal Severance Trust.

Final evidence of the State commitment to share in the financing of water development is provided by action taken to develop a joint Federal-State-tribal project to replace or restore the Tongue River Dam. The legislature appropriated $400,000 toward a joint feasibility study with an expected cost of $102 million and dedicated $10 million to the construction of the project. S. 621, in its present form, may not be the proper vehicle to innovate the Federal-State water project development. However, we are encouraged by its approach.

In conclusion, I want to thank you, Mr. Chairman and Senator Baucus, for the opportunity to present the State's views.

Senator Abdnor. We thank both of you gentlemen for testifying on this very important subject.

Let me ask you both this question: Do you believe that S. 1095 will reduce State control over water rights? How do you feel about that, Mr. Bell?

Mr. Bell. I don't think that would happen in my view. As I recall, S. 1095 provides for State advisory panels and I think one of the advantages of a water resources council or its counterpart has been that it has provided an opportunity for State input at that level, so I don't think there's a concern there.

Senator Abdnor. How about you, Mr. Berry? Do you have any concerns?

Mr. Berry. No, I will agree with Mr. Bell that the State advisory committee and independent chairmen will provide the State's adequate input to protect its concerns.

Senator Abdnor. Thank you.

Also, Mr. Bell, how many States do you represent?

Mr. Bell. Twelve.

Senator Abdnor. Well, are title III funds pretty important to those member States?

Mr. Bell. Senator, our recent position is a little ambivalent because I think recent experience, at least in my view, the title III grant program was unrestricted in terms of how it could be used at the State level and, therefore, was very helpful. It provided the flexibility to upgrade State planning capability. In recent years, there have been strings attached, and because of that experience, the States have been, I think, a little less supportive of title III grant programs sent previous.

Senator **Abdnor**. What kind of strings?

Mr. **Bell**. Associated with how the money would be used in terms of restrictions on particularly what the money could be used for. My answer with certain other Federal executive orders, the States found would be to restrict it essentially.

Senator **Abdnor**. As you know, the administration planned to do away with them altogether and he invokes that in this legislation. I assume you still would rather see it allocated to the States but with less strings if you had your way?

Mr. **Bell**. I believe that's correct. We have taken no position with respect to the bill, but I believe your assessment is correct.

Senator **Abdnor**. You don't see anything in S. 1095 that would attach certain strings to it?

Mr. **Bell**. No, I don't. The strings came in the guidelines.

Senator **Abdnor**. Do you depend much on the Federal grant?

Mr. **Bell**. Yes, we do, Senator, almost extensively. We have engaged, as I mentioned in my testimony, on a new water development program probably unprecedented in Western States and probably fortunately we have been able to move in that direction. However, we are almost totally reliant upon the Federal funds for a planning effort and we see nothing in 1095 that would be undesirable to us along those lines.

Senator **Abdnor**. In South Dakota, Mr. Newfelt stated that on several occasions he has been very dependent upon this. I'm sure a lot of the States in this part of the country will be that way, particularly if we come up with legislation that puts more and more responsibility on the part of the State.

Mr. Berry, do you believe there should be subsequent water supply and water quality planning?

Mr. **Berry**. Yes, I do, Senator. I believe that the two are inseparable. Considering water quality is partially the concept behind Montana's water reservation system. We reserve water for water quality benefits. I don't think that you can separate the two and have an effective program.

Senator **Abdnor**. I have no other questions. Senator Baucus?

Senator **Baucus**. Thank you, Jim. I am a little concerned about how cost sharing would affect Montana. I wondered, Leo, if you could more explicitly outline some of the problems that might occur if the cost sharing bill under consideration were to be enacted. You mentioned the disportional allocation of benefits—downstream benefits, flood control or hydropower, for example, might not be proportionately distributed between the host State and other States.

Would you go into that in more detail?

And second, I'm not quite sure if I understand what the State's position is, whether the State is for or against that approach generally.

Mr. **Berry**. Well, we've been wrestling with this in our own minds, Senator, since we read the bill. My initial thought was the

25 percent was a pretty high amount. I don't know how many projects could be feasible or will be constructed with the State automatically putting in 25 percent.

Senator BAUCUS. Now, that 25 percent, could that be in kind construction as well as cash?

Mr. BERRY. Well, the way we read it, it looks like it requires us to put 25 percent of the financing up front, which we felt was fairly steep. For example, we, under the Governor's major water development bill that was passed this session, we were able to convince the legislature to authorize $10 million worth of bonds to reconstruct the Tongue River Dam which is a State-owned water project. Now, there are a number of benefits to the construction of that dam other than flood control—increased irrigation. One of the primary benefits is to help solve the Indian water rights claims on the Northern Cheyenne who have an undetermined claim out of the Tongue River Reservoir or out of the Tongue River. We feel that a Federal cost sharing with that will go a long ways to help in solving the conflict between the reserved Indian water rights and the currently permitted water rights through the State of Montana permit process for use out of the Tongue River.

Now, that $10 million is probably around 12 to 15 percent of the estimated project cost. In that instance, we felt that was sufficient to take care of the State's obligations in providing its portion of the cost share because there is significant Federal benefits to that project, also.

In a different project, it may be that the State will benefit to a large degree. It may be you want to go up to 15 or 20 percent, or something like that. But we had trouble just accepting a 25-percent upfront financial burden on all projects. We feel there has to be a flexibility or cap or something built in on this or you are unlikely to get very many projects completed.

Senator BAUCUS. That does provide contributions in kind. They are also permissible.

This is a tough issue because I suspect that if there's no cost sharing, the administration is not likely to recommend some additional projects in this budget or the next budget and that puts the States in a difficult position.

I think you are very accurate in your earlier statement in outlining some of the problems and some of the unequal benefits and costs that accrue if there's a flat 25 percent cost sharing provision where the host State gets higher than 25 percent of the benefits. In these cases it might get more or less, depending on the project and what the project actually is.

I can understand why you haven't come out one way or another.

Mr. BERRY. We are committed to cost sharing. It's hard to come up with $10 million of inkind services. There is going to be a financial burden.

Senator BAUCUS. I have trouble with a block grant on the basis of population. There are different attributes to States other than population, you know. We in the West are thinly populated States. I just don't think it's proper to say a major determinant will be population distribution of block grants. It isn't fair.

I have no further questions. Thank you very much.

Senator Abdnor. If I might follow up, briefly, you do have the ability, I assume, for some cost sharing?

Mr. Berry. That's correct.

Senator Abdnor. In my State, we wonder sometimes how we can possibly come up with the kind of funds but inkind contributions, of course, would be of help. The ability to pay might continue to be a factor. Would you gentlemen agree to something along those lines? Both of you gentlemen believe in cost sharing and that the State should have a greater role in planning? How do you feel about States having greater say? Do you think there's room for that in building a construction program?

Mr. Berry. I do, Senator. I think it's mandatory if we are going to have successful programs here in the West. We haven't seen a great deal of it in the past. In many instances there have been a few bright spots. I might mention the regional coal teams that were established to lease Federal coal in the States. Regional teams were established in which the Governor had a representative on the team and that team actually developed the regulations. The regulations were not in play from a regulatory standpoint. They were not reacting to already established regulations or policies but we actually were involved in the formulation of those policies. And I think that's what we are seeking. We're seeking a partnership in the construction of policies and decisions. And I think it will have to be that if we are going to have a successful program.

Senator Abdnor. I happen to agree with you. Let me ask Mr. Bell something.

When do you think your group will have a position on cost sharing?

Mr. Bell. I don't think it's possible to get two soverign States to agree on an issue of this importance. Mr. Berry has discussed the problem within his own State, coming to grips in terms of a definitive position. And I think it's compounded when you are looking at 12 States. I would say that there are certain, what you might call requirements, the States would be looking at in terms of what we might call a quid pro quo financing. I think increased State development will be crucial and I think another aspect is to look at how Federal policy will allow States to augment their present income sources.

In other words, if the States are asked to increase their share of financial commitment up front, I think you need to express the availability of income sources at the State level if we are to meet that commitment.

Senator Abdnor. Don't you think, though, that since there might be a difference of opinion among your States, that each should make some comments on this because something could very well come out of this and we like to know what the feeling is, even if there is a difference among the 12 States. It would be interesting to see what their views might be individually.

Mr. Bell. Yes.

Senator Abdnor. And the record will be open for 2 weeks. With the problems we are groping with and legislation we are dealing with, even though collectively you don't have a joint opinion, there might be some strong feeling individually. And we are looking for some kind of guidance so in the event you care to submit testimony on behalf of State by State, we'd be happy to receive it.

Mr. **Bell**. I'll pass that along, Senator. Thank you.

Senator **Abdnor**. Also, do you believe that the quantification of Federal reserve water rights, especially Indian rights, have a priority?

Mr. **Bell**. Yes. I think Mr. Berry has discussed the problems with those outstanding claims. And I think it's a priority issue. We tried to resolve that issue.

Senator **Abdnor**. It's a bid issue here. Do you want to comment on that?

Mr. **Berry**. In your water adjudication programs, the Indian tribes either file their claim or negotiate with the State by 1985 or the adjudication process will continue to the court.

Senator **Abdnor**. What kind of reactions have you received?

Mr. **Berry**. We have got two tribes that are negotiating with us and one that is about to commence negotiations and three that have not taken any action and one which has decided not to participate.

Senator **Abdnor**. You could very well be out front in this issue. Do you think this system is a model for other States?

Mr. **Berry**. We hope so. And we'll find out within the next couple years whether others will embark on its path.

Senator **Abdnor**. Very good. I've been very impressed by how well your State legislature in general and the tribes are moving here.

Mr. **Berry**. We might never get together or we are not together very far yet, but I am impressed with the steps that have been taken. And I think it's going along very well, given the complexity of the problem.

Senator **Abdnor**. At least you are dealing with it.

Let me just make one comment on section 404. Senator Baucus knows it is coming up under another subcommittee and there will be testimony available there. We do have some jurisdiction over this. We found this to be quite an issue up in Alaska. We had a hearing up there. Section 404 was a big subject and so was the Dam Safety Act. I can just tell you we won't be getting into that for another year. We have held some hearings on it.

The comments you made on the reclamation law and the 160 acres, we hope to share those with the Senate Energy and Natural Resources Committee because that's an issue all over the country, so I would just like to thank you both. You both have been a big help and I appreciate your testimony. If you do have any additional testimony, we would certainly be happy to receive it. Thank you very much.

Mr. **Bell**. Thank you.

Mr. **Berry**. Thank you very much.

Senator **Abdnor**. Next is a panel made up of Mr. Keith Kelly, deputy director of the Department of Agriculture of Montana, and Mr. Garry Buchanan, director of the department of commerce.

Do either one of you care to go first?

STATEMENT OF KEITH KELLY, MONTANA DEPARTMENT OF AGRICULTURE

Mr. Kelly. Thank you for this opporunity to welcome you to Big Sky Country and to allow us to share our concerns with you.

For the record, my name is Keith Kelly. I am deputy director of the Montana Department of Agriculture. I'm here today representing the director of agriculture, Gordon McOmber.

I welcome the opportunity to share with you our views and concerns on agricultural transportation in Montana. The comments I will make this morning are made on behalf of all Montana farmers.

Transportation has been and will continue to be the single most vital link in the development of Montana's economic base. At the June meeting this year of the Governor's Ad Hoc Committee on Agriculture, farm organizations and agricultural leaders from all over the State agree that transportation is the No. 1 problem confronting the State's No. 1 industry. In fact, it is not only a problem for our farmers but it is everyone's problem. Without a viable agricultural industry in Montana, we will not have a healthy Montana economy.

The $1.4 billion in cash receipts from the marketing of agricultural products this last year is the single largest contribution to Montana's general economy. A large portion of this money is generated from commodities sold for the export markets.

Price competitiveness in the world marketplace is critical to the maintenance and development of export markets. Outside of the cost of production which includes land cost, interest, fuel, fertilizers, supply and machinery, transportation is the largest factor in determining the price of any Montana agricultural product destined for a foreign market.

Montana-produced honey and processed meats have been priced out of the export market singularly because of transportation cost to the west coast. The same situation is rapidly developing in our most important export products of wheat and barley. Right now, eastern Colorado and western Nebraska wheat can be shipped through Montana to the west coast on a cheaper rate than Montana wheat can move to market. We are on the verge of becoming a marginal supplier of wheat for export. Simply stated, after the Midwest States sell their wheat, then Montana wheat will move next if there's still an adequate world demand.

During the 1979 grain marketing year, 76.2 million bushels of wheat with a value of $273.5 million was shipped out of Montana. I don't want to sound like an alarmist, but I believe there is a good chance that Montana will lose a large part of that 76 million bushels of exports and become a residual supplier to the world grain market if our grain marketing and transportation system is forced to make costly and radical changes.

The administration proposals will very likely cause those changes in our grain marketing system. The implementation of an eightfold increase in user fees over the next 10 years on the river system as proposed by Budget Director Stockman, in all probability, will cause a shift in export shipments of wheat to ports in California from the Port of Portland. The Ports of Seattle and Tacoma are basically corn and feed grain ports and lack facilities to handle the volume of wheat that exits from the United States from Portland.

The shift to California will mean that U.S. wheat for export will be coming from Central and Midwest States such as Oklahoma and Kansas, and leave Montana high and dry because there is no competitively viable transportation system to California to move the volume of wheat that we export out of Montana annually. This would force bankruptcy of some sectors of Montana's grain industry, which would be a tremendous loss to Montana grain producers, not to mention the loss to the State's economy.

The country elevator is a prime example. Beginning with the implementation of the unit train grain rates in 1980, we have already begun to see major changes in the grain marketing system in this State. An example is the accelerated remodeling or total reconstruction of existing grain elevator facilities in order to accommodate the 52-car unit trains. Costs for such renovation are estimated to run from $500,000 to $6 million per facility.

Smaller elevators lack moneys to switch over to the larger transportation-efficient grain subterminals. They face an almost total loss of business because they cannot compete with subterminals. When coupled with the fact that we have a monopolistic railroad situation in Montana that has greater flexibility in increasing their freight rates, it leaves Montana producers in a less competitive position than ever before.

Competition and market alternatives is one of our few hopes to insure that Montana grain producers will be a continual supplier of grain, not a residual supplier. Country elevators and competitive truckbarge rates do offer competition to the Burlington Northern Railroad and the large grain terminals located on the Burlington Northern main lines. The country elevators could continue collecting grain and trucking it to the Port of Lewiston-Clarkston to be ultimately barged down the Columbia River system to the Port of Portland.

This alternative is only viable if barge costs on the Columbia-Snake River system remain reasonable. In calendar year 1980, approximately 30 million bushels of Montana grain moved down the Columbia River. However, if the recommendations contained in the Office of Management and Budget Director Stockman's statement to this subcommittee on July 16, 1980 come into being, this volume will be reduced to a trifle.

Mr. Stockman's proposal will not only increase user fees on the river, but will impose approximately a $1.00 per ton charge for export-bound cargo picked up by ships coming into the Port of Portland. That would translate to at least a 5 cents per hundredweight on all of the wheat shipped from Montana.

I realize that 5 cents per hundredweight may not seem like a lot, but as I indicated earlier, that 5 cents per hundredweight added to an already marginal transportation system could be the straw that breaks the camel's back.

Foreign grain buyers are no different than you and I when we can get the same product of comparable quantity at a cheaper price. If you or I can continually go to a particular clothing store and buy our desired brand of overalls cheaper than anywhere else, we will probably do so. Only when the store runs out of overalls do we go to the more expensive store. And the same scenario can be developed in our grain markets. Only when Colorado, Nebraska, and Kansas ship the last of their winter wheats at a lower cost, then the foreign buyers will divert their attention to the Montana winter wheats that necessarily cost more because of our uncompetitive transportation.

In Director Stockman's statement of July 18, he says, and I quote, "Subsidies not only increase the size of the Federal budget, but almost inevitably distort the workings of our free market economy. Such distortions decrease economic efficiency."

With the recent filing of a class action suit against the Burlington Northern Railroad by a coalition of farm organizations and commodity groups on behalf of all Montana grain producers who are protesting the unreasonableness of the high freight rates that are being charged, I ask the question of who is subsidizing whom?

It appears to me that perhaps Montana grain farmers are subsidizing private transportation companies who are charging freight rates far above their allocated costs.

The current price for 12 percent protein Montana winter wheat delivered to the west coast is approximately $4.60 per bushel. Subtracting the handling charge of approximately 11 cents and the transportation cost of 91 cents per bushel, the northeastern Montana grain grower received only $3.58. He is paying 20 percent of the wheat's value just to move it to the market. Using the 1980 figures again, the average cost of production for a bushel of wheat on a dryland wheat farm in Montana is approximately $3.50 per bushel excluding his land cost. If only 8 cents per bushel makes his land payment, the producer is forced to borrow high interest money to meet his financial obligations.

And since a producer cannot pass on his cost of monopolistic transportation charges, I ask Mr. Stockman, isn't this also an undesirable distortion to our free market economy?

Gentlemen, my testimony has been punctuated by the word competition. From our point of view, it is the key ingredient needed to insure that Montana producers pay only their fair share of the transportation bill.

A viable truck-barge rate offers that competitive check to our monopolistic railroad dilemma in Montana. Senator Baucus knows we have lost the Milwaukee, despite trying to keep it alive this last year.

I would strongly urge this subcommittee consider these impacts on Montana and the impacts on total agricultural exports from the United States. It has been stated repeatedly by President Reagan and other officials of his administration of their support and commitment of expanding U.S. exports. I can only see the intent of the administration's proposals we are discussing today as counterproductive to the expansion of exports and detrimental to Montana grain producers.

Thank you for your time this morning. I will be available to answer questions after Mr. Buchanan has completed his testimony.

Senator Abdnor. Thank you, Mr. Kelly.

The next witness is Mr. Buchanan. Do you have a written statement?

STATEMENT OF GARY BUCHANAN, MONTANA DEPARTMENT OF COMMERCE

Mr. BUCHANAN. Yes. I will deliver copies of it. I will try to keep my remarks brief as many of the concerns of the Department of Commerce echo the concerns of Mr. Kelly and the Department of Agriculture.

Mr. Chairman and Senator Baucus, again, as other members of the State administration has said, we appreciate the opportunity to speak before you and to at least register our concerns concerning the proposed increase in waterway user fees.

Just a quick comment on the Department of Commerce. It is a new department which only took effect July 1. It was a result of Governor Schwiden's reorganization of the State executive branch, a reorganization of substantial proportions. Among other things, this reorganization combined the former departments and Cabinet level departments of the Department of Business Regulation, Department of Community Affairs, Department of Professional Occupational Licensing into one Department of Commerce.

One of the objectives was to combine, we think really for the first time, business and commerce-related services under one roof and one department within State government. As part of the reorganization, the 1981 legislature created a new division of transportation which organized nonhighway transportation activities within a new Department of Commerce. And I speak to you today representing that division which has also just been staffed up in the last few weeks.

Again, we appreciate the opportunity to talk today about the potential effects of increasing waterway user fees on the Snake-Columbia River system.

Last year Congress rewrote the book on Federal economic regulation of surface transportation. It threw out the old regulatory scheme which was based upon the assumption that Government could play a substantial role in insuring adequate transportation systems in all parts of the country. With its recent action, Congress has set a new course for us, making competition and self-reliance more important in insuring adequate transportation.

The history of regulated transportation in this country reflects the concerns of rural and agricultural America. After achieving monopoly status, the railroads developed practices of rate discrimination which placed a heavy burden on the Nation's rural shippers. Regulation became the answer to controlling monopolies when they were in a noncompetitive environment. Monopolies were a necessity to provide the economies of scale and efficiencies within the rail industry.

Serving the needs of commerce still requires service regulation by providing transport services where such services are not otherwise economically justified. To be competitive, transportation modes must minimize expenses by eliminating unprofitable ventures. Recently we've seen this. This has led to abandonments, subsidies, user charges and a lack of transportation choices in rural and agricultural areas. Regulation, as I see it, should be to make transportation modes more competitive, more innovative, and healthier financially. The State of Montana fully supports these goals. However, it appears that we are faced with a deregulated system that may well result in higher transportation rates and curtailed service.

For agricultural economy in America, adequate transportation at a reasonable rate is essential for survival. Without adequate transportation, Montana's agricultural producers cease to be competitive in the world market and cannot get their goods to market. With the majority of Americans relatively removed from the agricultural-producing rural areas, adequate transportation is essential to this country. Agricultural America is essential to the preservation of the American way of life, and we must resolve the transportation problems of this area in terms of quality of service costs, transportation choices and availability. Every mode of transportation in this country has been subsidized to some extent during the periods of development—the railroads with land grants, motor carriers with highway systems and interstates, and finally the barge systems with inland waterway lock and dam systems. Recently, the Government has been urged to end subsidy of barge systems and this will decrease the competitiveness of truck-barge systems and will ultimately have an adverse effect on Montana farmers and the Montana economy.

In 1978, Congress enacted a phased-in fuel charge of 4 cents per gallon. By 1985, this phased-in fuel charge will rise to 10 cents per gallon. Now the Reagan administration wants the barge operators to pay nearly the full cost of operating the waterway. It is estimated that the fuel charge would have to jump to 30 cents per gallon to cover these expenses.

With the demise of the Milwaukee Road, Burlington Northern was left essentially as a rail monopoly in the State of Montana, free to do as it wishes. The only alternative to the extremely high rail freight rates are the truck-barge combination. Trucks load up with grain in Montana, move to river points such as Lewiston, Idaho, and Central Ferry, Wash., and the wheat is transferred to barges. The wheat is then shipped down river to Portland for loading on ships; 90 percent of Montana wheat moves west and 80 percent of that wheat goes into export channels. Montana competes on the world market for the price of wheat here in the State. Our lumber must move long distances in order to be utilized. Our coal is utilized predominantly to the east of Montana. There is, however, a potential for increasing westbound coal movements which will place a further strain on our westbound transportation capabilities.

The cost of moving grain from Great Falls to Portland by truck-barge combination is about $1.34 per hundredweight. This truck-barge combination rate is less than the single rail car rate of $1.45 per hundredweight but greater than the railroad's $1.24 per hundredweight 26-car rate and $1.18 per hundredweight 52-car rate. Not all Montana grain producers can take advantage of the multi-car rates simply because they are unable to load unit trains at their location. For them, truck-barge combinations are the only alternative and raising waterway use rates will harm them and all other Montana farmers.

Montana rail and truck-barge rates are explicitly related. To be competitive, each tries to charge less than the other. If the cost of truck-barge transportation increases, rail rates will also rise adversely affecting Montana farmers by forcing them to pay higher transportation costs.

Today, we are debating whether all modes of transportation should pay their own way or whether they should be subsidized by the Federal Government. Transportation is essential to the American economy—and certainly Montana's. Therefore, it needs Federal support, and in some cases, regulation to insure that all areas are served.

The important issue in rural transportation is that it must take into account not only the interest of the carriers themselves but also the interest of the transportation user. Parts of the country are not now adequately served and transportation costs are high.

The basis of development of an adequate, modernized rural transportation system is in the public interest. Montana supports a balanced approach which would insure that no transportation mode is forced to operate in an uneconomical fashion. But we also feel that the interest of shippers must be protected. This will not be accomplished by allowing the railroad monopoly to escape competition. We must stimulate competition. This cannot be done by forcing barges to raise their rates and decrease their ability to compete with the railroads.

Mr. Chairman and Senator Baucus, thank you very much.

Senator ABDNOR. Thank you, Mr. Buchanan.

Mr. Kelly, I think you referred to Colorado and western Nebraska. Do they get cheaper rates to the west coast? Is that what you are saying?

Mr. KELLY. Yes, sir. At the present time, Senator, I just picked a few figures to reference that. Only a single-car rate out of Wolf Point, Mont., with a distance of 1,100 miles, it's $1.18, and a single rate out of central Kansas right now today, which is 1,900 miles, or two-thirds of the distance further, is approximately $1.19 or about the same. That's from central Kansas.

If we move into central and western Nebraska and eastern Colorado, it's very easy to find rates that are lower than the Montana rates but yet at an appreciably longer distance, so right now we are facing that prospect of being on the verge of the main flow of grain to the west coast markets.

Senator ABDNOR. Let me ask you this: These days, we are primarily reviewing a lot of things the Federal Government has gotten into in the past in an attempt to bring greater economy to the Government. How far do you think the Government should go in subsidizing transportation? Where do we start and where do we end? Mr. Buchanan, I think you made reference to it. Do you feel, whatever it cost, the Federal Government should step in and do it?

I was at a hearing in Santa Fe and they think we ought to pipe water to them, regardless of how much it costs to keep their agriculture going, so I wonder if you run into this. Where do you feel something ought to go and where should it stop?

Mr. BUCHANAN. I can't answer that specifically. I would agree that the Government pulling out of regulation in some areas is desirable. I'm sure there's a balance between a total deregulation and keeping certain kinds of regulations. We obviously feel strongly about this particular one. This Department of Commerce, we are fighting deregulation on a number of fronts and some places hurts us more than others. The airplane deregulation affects Montana's economy severely. We fortunately, by encouraging the growth to some State economies per air service has come up to our own ability to respond to a major piece of deregulation.

I think as rural States, we have an interest in watching and supporting Federal Government at minimum in a careful phaseout of regulation. Obviously we can more carefuly than indicated here.

Rural States are affected, I think, adversely and more thoroughly by these kinds of regulations. It's a balance that we think has to be strong. We think this goes too far.

Senator ABDNOR. Water fees or not, I guess we are going to continue having transportation problems. We've had our railroad system mutilated up in South Dakota. We have a State plan we have thought up but we have to find somebody to operate it. But it is a real problem. But this user fee does present quite a problem.

Let me ask either one of you, do you think that we are going to have to have a lot of work done on the river to continue with grain shipments out to California?

Mr. KELLY. Senator, with regard to the Port of Portland and the growth we have experienced there, the Port of Portland is becoming one of the major export houses of locks for exporting wheat to the Pacific rim countries. And I guess if we look at demographics and other things in consideration and the growth of the People's Republic of China, we can only anticipate that that growth is going to continue and the demand is certainly out there. If the Chinese were only to increase their consumption of wheat by a couple of ounces a day, it takes a whole Montana wheat crop to satisfy that one or two ounces with that large of a population, so in the long haul, I think it's fair to say we anticipate the Soviet Union to come back into the market as a major purchaser of U.S. grains. And that the growth potential out there is—it has a lot of growth room available out there. And with that, certainly it goes to say some upgrading on the Columbia River system is necessary to accommodate that growth.

Senator ABDNOR. Mr. Stockman has told us point blank that the next 3 years' budget is just enough to carry on the way it is. If there's going to be new additions in the waterway system, they are going to have to be paid for by the users to some extent. Do you feel the added growth on the river will produce enough added revenue to hold the raise down to a reasonable figure, or do you think they are going to get clear out of hand?

Mr. BUCHANAN. I haven't been able to study it that much.

Mr. KELLY. In looking at the next 20 years, if we are imposed upon us in the next 4 or 5 years some additional charges in the cost, they are going to have to be passed back on to the users. We have a threat of doing the reverse. We may just scare the growth completely off the Columbia River system to go down to California or down to a deep-water port. We are faced with a double problem with the inland water system. Then we have to get the port facilities so we can handle the deeper draft barges out there.

Senator ABDNOR. We're going to Vancouver the day after tomorrow and I understand we will hear from a great many witnesses on the deep-water port bill. That's going to be equally controversial so I know what you are talking about. I think of the possible increase this could bring to the cost, for instance, of a bushel of grain. In Minneapolis some people testified that the increase would be up to 20 cents a bushel additional cost on the Mississippi.

We have heard 30 cents in committee in Washington. You suggested maybe it would bring a cost of 5 cents. Does that mean it's cheaper to ship on the Columbia River than it is on the Mississippi or maybe you are being too kind in your projection?

Mr. KELLY. I can't give you a definitive on the breakdown of all my costs with the dredging operations necessary to get to the Port of Portland. And I believe we have one major facility on the Bonneville Locks as presently exists that do need some major work on them that possibly do not show up, but this is just the maintenance operations on the river. And I'm not that acquainted with the port authorities. And I'm sure they have better figures.

But the point is we have a marginal transportation system in Montana. It doesn't take very much to just bog the whole system down to where, as we look to other ports and to other areas to take the grain to, that even a 5 cent a hundredweight increase—I guess in one article in the Shipping and Daily News in an article on June 18 of this year says, according to grain dealers, that even an increase of a quarter-of-a-cent per bushel can make or break a grain deal.

They have calculated out $63,750 user charge on a 50-ton shipment would represent increased transportation costs of about a 4 cents per bushel, so to keep commodities competitive on the world market, the user, who is the one who is going to be forced out to make the difference has to absorb those different costs.

Senator BAUCUS. What is the source?

Mr. KELLY. Shipping and Daily News, I believe the date is Thursday, June 18 of 1981. And I believe this comes off of the west coast out of the Portland-Seattle area.

Senator BAUCUS. Keith, Senator Abdnor's first question dealt with the rate differential between Kansas and Nebraska on the one hand, and eastern Montana. In your own personal opinion, why do you think there is that great differential?

Mr. KELLY. First, I have a hard time, Senator, grasping with the 700-mile longer haul being able to be delivered to the west coast at the same rate. And I guess then when I look at schematic maps of the railroad and competing railroads and I see the Union Pacific going through Nebraska and Kansas and those areas also competing to that traffic, that volume of grain on their line instead of Burlington Northern, first blush leads me to believe competition really does work well and that's proof they are keeping rates down there in order to get the bids away from the other carriers.

We don't have that option in Montana. We don't have a viable railroad alternative. And with that, I guess my initial conclusion would be competitive carriers do keep rates down.

Senator BAUCUS. I think that's right and wonder if that is the department's view?

Mr. KELLY. It certainly is.

Senator BAUCUS. It's competition in Kansas and Nebraska which keeps that rate two-thirds lower as it were than compared with rates that Montana producers must pay. I think it's basic competition, rail competition. It's another form of competition in Kansas and Nebraska?

Mr. KELLY. Well, Senator, they might be further along on quicker and better loading facilities but, you know, I do have a hard time believing Montana grain elevators are that inefficient to load out grain cars. That still leads me back to this competitive carrier and they're trying to get the bids away from the other one. And, therefore, producers and everybody benefits in the form of lower rates.

Senator BAUCUS. Some Montana grain producers tell me that on occasion where, say, the truck-barge operators in the State are able to charge a slightly lower rate, say, than Burlington Northern, that Burlington Northern then comes in and lowers its grain rate to drive out the truck operators. Do you agree with that analysis? Have you seen that occur in Montana as far as the Department of Agriculture? Can you tell?

Mr. KELLY. Yes, I do, Senator. I think over the years from looking at the freight rates that the producers are charged by Burlington Northern Railroad and seeing what has happened when trucks begin to get a major share of that market, that truck shipping down to Lewiston, Idaho, then all of a sudden it's how long do they stand being injured by the truck movement and allow so much. Are they going to move some?

Almost 40 percent of the movement of grain out of Montana was going on trucks down to the Columbia River system. And then a decision was made implementing the lower freight rates that came in. And in December of 1980, which is a benefit to grain producers, too, but I'm sure part of that desire was Burlington Northern taking the bids back away from the truck-barge user and putting it back on the railroads.

And so, I think, at times in the last several years there are instances where trucks were getting an increasing portion of the area out here and that rates are then again lowered to capture back the lost traffic that the Burlington Northern originally had.

Senator BAUCUS. So it's your analysis that competition is a very strong force in keeping rates lower than otherwise would be; is that correct?

Mr. KELLY. It certainly is.

Senator BAUCUS. Certainly in this case, your analysis is that because the trucks were able to compete with BN which forces BN to lower its rates, at least until fewer trucks are hauling grain. And then is it true that rates go back up again?

Mr. KELLY. Rates since have crept back up. And now more and more trucks are starting to haul more grain out of Montana. But without that option of going to Lewiston, Idaho, I would really question why the benevolent railroad would lower the rates the first time to bring them down there to be competitive.

Senator BAUCUS. I'd like to draw a little more to your analysis that Montana producers tend to be the last producer to ship grain for export. You mentioned that when foreign buyers go to buy grain, they obviously get the cheapest grain possible. And you went on to point out that with the conversion to unit trains that a lot of the elevators have to convert and a company has to encourage certain costs which I suspect will be passed on to producers. And this year looks like a large American grain crop and perhaps Montanans are force to pay higher rates. And since they're near the end of the line, that may be they are even forced out entirely of the export market. Is that the kind of problem you see developing?

Mr. KELLY. Yes, I do, Senator. I do not mean to be an alarmist in that situation but studying it for several years or observing our transportation, you know, we are so isolated with inland locked area and we do not have a very good alternative to move grain to the east and down the Mississippi River system or Missouri-Mississippi River system. And I think if you look around the country, and I believe that bears itself out, that somebody can probably address it more accurately than myself. But where are the major areas in the United States that store grain crops: Montana and North Dakota and South Dakota. These three northern tier States are isolated on transportation. And these are usually the ones that end up storing and carry over. We carry far more forward than other areas of the country. Kansas, Nebraska, Oklahoma do not because of their proximity to the port facilities. They get their grain out first and then if there's still the market, then we get our grain out too.

I want to add that Montana has high quality wheat. We have had the luxury of high quality wheat yet to be traded.

Senator BAUCUS. This year is a little different?

Mr. KELLY. That's right. There is fairly good quality wheat all throughout the country. That's where we are going to get hurt.

Senator BAUCUS. So to expand this point, some people suggest that because in past years some of BN's revenues from other operations has helped pay for some of the railroad operations, that is some of the coal-timber revenue from BN is able to pay for some of their rail operations, that because of BN's holding companies there's a lot more pressure on railroad operations to increase their rates even more. And to me, that analysis as more evidenced and a better argument for the point that you are making, that is that Montana is going to pay for higher grain rates and left even further behind and an even higher percentage of Montana grain will then be carried forward. Is that also something that you see happening or not?

Mr. KELLY. I would just like to quote a BN official here today. He said we love to haul Montana grain. My interpretation of loving to haul Montana grain is it is very profitable grain to haul in all of this country. My basic understanding of economics is if you are the only game in town, you have the luxury of charging what the traffic will bear. And I guess Montana grain producers in their class action suit are saying you are charging more than is necessary and far more than Kansas and Oklahoma and Colorado people are having to pay for their transportation bills, so we love to haul Montana grain. It's very profitable for Burlington Northern to haul our grain.

Senator BAUCUS. Gary, has your department had a chance to look down the road and look at projected increases in coal tonnage that might be shipped from Montana for export and what effect that might have on, say, BN's ability to handle grain? Do you see any bottleneck problems of increased coal tonnage being shipped westward?

Mr. BUCHANAN. I can't comment on the Burlington Northern's ability to ship coal. But I think in discussions we had with their president of the holding company and other top executives lately, the interesting shift in conversation are the conversations center around—begin with oil, gas, timber, and coal and only after dealing with issues in that area do we talk about railroads. Now, it does not seem to be a priority of conversation in terms of dealing with the holding company itself. I think they very definitely face transportation problems with coal and trasporting their own coal.

Senator BAUCUS. This is a tough question. Senator Abdnor asked the question what do we do to subsidize transportation. And frankly, it seems to me that one could argue that there must be user fees. Those user fees should be increased to pay for costs. But my problem is that if that's the case, there should be ways to make sure BN is not monopolistic and take advantage of that. The whole current of the country is moving is such a way to deregulate and we are beginning, I think, to confuse myth with reality that deregulation is certainly good in the sense that it cuts back on red tape and unnecessary rules and regulations. But we also must make sure BN doesn't charge Montana farmers any more than it charges Nebraska producers. So far the whole mood of the country and the ICC seems to be in the opposite direction. ICC does not look at fairness and equity. It would rather deregulate more. And that's the problem.

Mr. BUCHANAN. For the moment it concerns natural resources and trees, at least in dealing with the larger companies. You said the mood of the public. And I don't have any definitive measurement in that, but in hearings across the state, Montana land grants were for railroads. And it's interesting now when we talk about the Burlington Northern, we want to keep the discussion on natural resources and only railroads, as I mentioned, come later in the discussions only after prompting. I think that that needs to be raised more often, that the reasons we are now dealing with these officials center around natural resources. But there may be some initial obligation in terms of initial land grants in that certain negotiations and discussions with the State around natural resources found on the same land grants, at least throw transportation back on the table in terms of our negotiations.

Senator BAUCUS. Thank you very much, both of you. We can go along this line more but we have many other witnesses.

Senator ABDNOR. You make a good point there, Senator. One thought leads to another but we do have to move on with our schedule.

Our next witness is Kenneth Boire, Mr. Lougge and Ms. Roscoe. We welcome you here, Mr. Boire and Ms. Roscoe. We appreciate your coming from Washington. Mr. Boire, would you care to start out?

STATEMENT OF KEN BOIRE, CHIEF, ECONOMICS BRANCH, NORTH PACIFIC DIVISION, CORPS OF ENGINEERS

Mr. BOIRE. Thank you for this opportunity to testify. My name is Ken Boire. I am Chief of the Economic Branch of the North Pacific

Division Corps of Engineers. I have a statement on the Columbia-Snake navigation system and the subject of user fees. The Columbia-Snake navigation system reaches from the Pacific Ocean to Lewiston, Idaho. The system is linked to the Pacific Ocean and foreign and domestic ports to the deepwater Port of Portland, Oreg.

A 40-foot-deep channel is maintained from the mouth of the Columbia some 105 miles upstream into Portland. Above Portland, a system of eight locks and dams extend shallow draft navigation inland on the Columbia and Snake River, a total of 465 miles to Lewiston. The shallow draft part of the waterway is self-maintaining in the sense there is no dredging required above Portland.

The Columbia-Snake eight-dam system was completed in 1975 and by 1978 had already exceeded total commerce projected for the year 2000 by planners of the system. We are including a table for the record which presents the latest estimate of projected commodity movements through the lock at Bonneville Dam. Bonneville is the most downstream lock on the Columbia-Snake waterway and commodity movements here are reflective of activity on the entire system. These projections were made assuming the current lock at Bonneville Dam would be replaced with a larger lock as recommended in the January 1977 feasibility report, Bonneville lock and dam, Oregon and Washington. This is the only major construction on the waterway. The current estimated cost of the new lock at Bonneville is $150 million.

The table shows tonnage increasing from 8.9 million in the year 1980 to 15.8 million in 1990, and 18.3 million by the year 2000. The existing lock cannot handle more than about 12 million tons.

These projected tonnages do not include the influence of potential future coal traffic on the river. The recent study done by Swan Wooster Engineering for the Corps of Engineers concluded coal could be shipped from Montana and Wyoming more cost effectively by rail. But indirect economic or noneconomic influences such as the availability of a domestic coal barge system or a desire for a rail backup system could displace some coal traffic from rail to barge. The consultant made a high case allowance of 10 percent of the west coast export volume for coal barge traffic. The consultant estimated coal barge traffic could be 700,000 tons, 1.8 million tons, and 4.5 million tons annually in 1985, 1990, and 2000 respectively.

Bonneville lock is regarded as a constriction in the system because it is the oldest structure of the system and houses the smallest lock at 76 feet by 500 feet. Ultimately, because of small size and navigation hazards, Bonneville will act as a bottleneck.

Barge operators incur delays and extra costs in breaking tows into smaller units for passage through the Bonneville lock. Long delays flow down following tows which line up waiting for lock transit. Average transit time for Bonneville lock in 1970 was 2.7 hours and had grown to 4¼ hours in 1980. By 1990 when lock capacity is expected to be approached, mean delay time will have increased to more than 12 hours. Commerce normally waterborne will be forced off the waterway as the lock facilities become more taxed and increasing delay time drives up the cost of water transport. These increased costs will be particularly evident in grain shipments where rail versus barge competition is very intense. Montana shippers would be heavily impacted since the system allows considerable savings over alternative modes for Montana grain. Today, 60 percent of the tonnage moving down river is wheat. It comes from eastern Washington, eastern Oregon, northern Idaho and the counties of northern Montana.

Wheat from as far as Kansas and the Dakotas has moved to lower Columbia River ports. The movements were small but indicate the large distances over which grain will move if transportation costs and purchase prices are favorable. According to our projections, the growth in waterborne wheat commerce on the Columbia-Snake waterway from Montana as a whole will be greater than for either Washington, Oregon, or Idaho until well beyond the turn of the century.

Economic analysis done in the course of preparing the corps' 1977 Bonneville lock feasibility report showed savings in transportation costs were greater for all Montana counties than any counties in any of the other States shipping wheat.

With regard to the question of users fees, the Department of the Army has submitted to the Congress two legislative proposals which would require recovery of future Federal costs for deep-draft—over 14 feet in depth—ports, and for inland and intercoastal waterways. The objectives of those proposals as reflected by the administration's position are to remove the Federal subsidy from these navigation programs, increase transportation efficiency, reduce the growth in Government spending, and move toward a balanced budget.

Cost recovery under the deep-draft ports legislation would require that a local public body after October 1982 agree to reimburse the Corps of Engineers for operation and maintenance expenditures. Construction and rehabilitation would require a prior agreement for reimbursement within 50 years for improvements initiated after October 1982. If the local public body is able to reimburse construction costs as they are incurred, the Secretary of the Army would be authorized to study and construct deep-draft projects without further congressional approval. No costs which are allocable to the use of these projects by the Department of the Navy or other noncommercial Government uses will be recovered by this program. Local public bodies are authorized to recover their costs from project users and the Secretary of the Army is provided the authority to issue cost recovery guidelines.

Cost recovery for inland and intracoastal channels and harbors of 14 feet or less in depth would be handled through a system of user fees developed and administered by the Secretary of the Army in consultation with the Secretary of Transportation. The user fees would cover projected operation and maintenance costs plus cost of construction and rehabilitation with interest and amortized within 50 years. The cost for new waterways could be partially deferred to allow traffic to develop, but in any case, would be fully recovered within 50 years. Only actual costs assignable to commercial waterway transportation would be recovered. The fee system would be developed so as to minimize disruption in traffic and promote efficient use of the waterways and other transportation modes. All fees and charges would be deposited in the inland waterways trust fund along with receipts from the fuel tax enacted in 1978. The funds' purposes would be expanded to allow its use for operation and maintenance expenditures on the inland and intracoastal waterways, as well as for construction and rehabilitation costs for projects initiated after the date of enactment.

The Office of the Chief of Engineers has estimated 1982 recoverable navigation costs, which are based on recovering a portion as well as drainage and other expense adjustments have been made to determine the costs assignable to commercial navigation. The estimated recoverable Columbia-Snake operation maintenance costs for 1981 operations would be around $10 million. By comparison, the recoverable operation of the Missouri and Mississippi is about $74 million. Both the Missouri-Mississippi and the Columbia-Snake systems have deep-draft entrances. In 1982 the cost of maintenance of the Columbia deep-draft supply has been estimated to be about $12 million. This would compare with about $45 million for the Mississippi.

Possible means of covering costs from the users might include license fees, charges based on tonnage over a given segment, lockage fees, tows or capacity of cargo vessels over various segments. Let me emphasize the segment charges as compared to nationwide charges such as license fees. With segmented charges, the users of each of the river segments pays for the costs incurred in that segment.

The sequence of events that follows in increase in transportation costs is that some cargo shifts to other modes while some cargo cannot absorb the increased cost and stops moving. The reduced use of the waterway means user charges have to increase to cover the total cost. To recover the same amount of money with a reduced volume of cargo, the remaining cargo will have to pay more. Only segments that can afford to pay would survive.

Because the fee itself will cause waterway use to change, it is not practical without results of a more detailed study such as the 205 study now underway, to quantify the impact on the cost of a bushel of Montana grain. We can say, however, that because Montana grain shipments by barge transit the entire waterway, the user charges for those shipments could be among the highest in the Columbia-Snake system under a segment fee, depending, of course, on how the segments are defined. Shipments originated closer to the lower end of the system could have a smaller segment to pay for.

On the other hand, if the fee is not imposed on a segment basis, the impact may be quite different. For example, a license to operate on inland waterways for all carriers, a nationwide fee, would put the burden of paying evenly on all users, regardless of how much advantage a particular shipment gets from the waterway. Such a nationwide fee could possibly result in less dislocation in the regional economy than a segment fee. In a system such as the Columbia-Snake, the shipments originating far upstream would be relatively better off since others would be carrying some of the costs. Under this type of fee, some users would be subsidizing others. So long as part of the true cost of any mode becomes masked by subsidy in this way, inefficiency begins to occur.

To the extent that any portion of a shipping cost are picked up by someone else, be it another shipper or the Federal Government, part of the true cost becomes masked. Because of this, some traffic may move at artificially low rates. But if the masked cost is considered, the freight would be moving at greater total cost. The application of a segment fee helps to uncover the hidden cost and lets the user decide whether the transportation service is worth the total cost.

As of this time, the Department of the Army has not developed policy guidance to instruct field offices such as ours in details of fee calculations. We are awaiting the completion of waterway user charges study now being undertaken by the Departments of Commerce and Transportation as a result of the Waterways Revenue Act of 1978. That study is due for completion by September 30, 1981.

[An attachment to Mr. Boire's statement follows:]

ACTUAL AND PROJECTED COMMODITY TONNAGES MOVING THROUGH BONNEVILLE LOCK

[Commodity tonnage in thousands]

Commodity	Actual data		Commodity projections [1]					
	1979	1980	1990	2000	2010	2020	2030	2040
Grain	4,467.4	5,356.9	6,720.0	7,420.0	8,270.0	9,127.0	10,176.0	11,226.0
Petroleum	1,536.7	1,462.2	1,271.0	686.0	784.0	921.0	1,087.0	1,556.0
Sand and gravel	(2)	(2)	5,500.0	7,400.0	9,200.0	9,500.0	9,800.0	10,100.0
Fertilizer	245.6	360.6	395.1	402.7	402.7	402.7	402.7	402.7
General cargo and containers [3]	(2)	(2)	345.8	526.4	806.7	1,243.2	1,923.8	2,984.5
Wood chips	(2)	(2)	900.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
Paper and wood products	(2)	(2)	94.9	101.0	107.6	114.4	121.8	129.7
Logs	331.3	395.8	342.0	342.0	342.0	342.0	342.0	342.0
Miscellaneous bulk	(2)	....	397.8	549.4	622.2	694.1	764.3	830.8
Total	7,527.9	8,931.8	15,871.7	18,326.5	21,427.6	23,230.0	25,617.6	28,442.0

[1] Source of projections is the January 1981, Feasibility Report Addendum, Bonneville lock and dam, Oregon and Washington. These projections are higher than projections in the January 1977 Bonneville lock feasibility study.

[2] Actual lockage data does not allow a breakout for this commodity group.

[3] The general cargo category includes the movement of lumber and wood products.

Senator ABDNOR. Thank you very much. Ms. Roscoe.

STATEMENT OF LINDA F. ROSCOE, ASSISTANT TO THE DIRECTOR, OFFICE OF TRANSPORTATION, U.S. DEPARTMENT OF AGRICULTURE

Ms. ROSCOE. Mr. Chairman, and committee members, my name is Linda Roscoe, special Assistant to the Director, Office of Transportation, USDA. I thank you for this opportunity to appear before you today to relate the interest and concerns of the Department of Agriculture in water-oriented transportation matters and agricultural transportation matters in general.

I would also like to thank you, Mr. Chairman and Senator Baucus, for the interest and support you have shown in the Office of Transportation. We certainly appreciate that interest.

The Office of Transportation was established 2½ years ago by consolidating the individual transportation functions scattered throughout the various agencies of the Department into one office, reporting directly to the Assistant Secretary of Marketing and Inspection Services. We daily find ourselves becoming more deeply involved in a wide variety of transportation matters which are of concern to shippers of agricultural commodities. These concerns are truly justified when one considers that nearly 10 percent of our domestic food dollar represents transportation costs and that transportation rates on export grain can amount to 25 percent of the value of the commodity to the producer.

The adequacy of port facilities and the efficiency of our water transportation system are strategically important in the movement of agricultural commodities to export markets. In fiscal 1981, projected exports valued at $46 billion matched against projected imports valued at $18 billion will leave an agricultural trade surplus of $28 billion. Furthermore, exports are expected to increase in coming years. One source predicts that the volume of agricultural exports will increase 17 percent by 1985, 35 percent by 1990, and 75 percent by the year 2000. To accommodate these increased flows and to reap their rewards, all of us must be well informed in transportation matters and be prepared to accept the challenge.

Barge transportation is very important to those in the grain trade. Each year, barges move roughly 40 percent of all export grains. Of the 4.95 billion bushels of grains and soybeans exported in 1980, about 2 billion bushels moved to port by barge. During 1980, around 2,000 new dry cargo barges were added to the fleet and volume handled increased by 16 percent over 1979. Despite these impressive growth figures, some backup problems occur on occasion, but these are temporary and we are satisfied that currently and for sometime to come, our Nation's ports are adequate to handle the shipment of agricultural products.

The administration's legislation to collect user charges is intended to put the waterways on a pay-as-you-go basis and help improve the waterway investment decision process. When the Federal Government renders a service directly to nonpublic enterprises at less than cost, the service amounts to a subsidy. Subsidies not only increase the size of the Federal budget but also inevitably distort the workings of our free market economy. By recovering 100 percent of the costs minus a fair share for naval and other governmental use, as the administration proposes, the subsidies will be eliminated.

As important as the waterways are for the shipment of export grain, we have to keep in mind that 60 percent moves by other means. If continued, subsidies to waterways will greatly reduce the viability of the other modes of transportation, particularly the railroad. We will then all be losers, especially those agricultural areas like Montana, that are long distances from barge facilities.

The initial results from the studies being conducted by the DOT under Public Law 95-502 show that farmers near the river will feel the greatest impact from the imposition of user charges—just as they currently receive the greatest benefits. Those near the rivers may experience transportation cost increases of 3 to 9 cents per bushel. The effect will diminish with increasing distance from the rivers. We are awaiting with great interest the final results of the DOT study.

In recent years, particularly in recent weeks, the adequacy of the St. Lawrence Seaway has come under examination. 1980 was not a good year for the Great Lakes and many shipping interests in the area are concerned about the ability of the Great Lakes to compete with other port ranges in the future. One study prepared for the Ontario government suggest that major tie-ups will occur if the

Welland Canal is not improved. Traffic into the Lakes is restricted to those vessels having a maximum draft of 27 feet and a maximum length of 730 feet. The Canadian study recommends either constructing dual locks at each location on the canal or enlarging the existing locks to accommodate 1,000-foot vessels. But even assuming no new facilities, a United States-Canadian review board has recommended substantial rate hikes to offset a projected U.S. operating deficit of $3.8 million and a Canadian deficit of $23.3 million over the next 2 years.

Mr. Chairman, I would now like to briefly address the transportation needs of agriculture in general and what we at the Office of Transportation are doing to respond to these needs.

Transportation can and has and will greatly alter the economic and social organization of agriculture and rural America. The economic viability of the agricultural sector including the family farm is critically dependent upon the provision of efficient, reasonably priced transportation services. Transportation, to a significant degree, determines farm income, when, and how products can be sold, and even which products can be profitably grown.

Transportation is a—if not the prime determinant of the very structure of the agricultural production and marketing sectors. There is no question that freight rates can and have forced farmers out of and into markets and this has a direct impact on the size and even the survival of farm enterprises. The lack of effective transportation competition can compromise any natural agricultural production advantages a region may have such as soil type, weather or even proximity to market. Transportation can make the obtainment of national farm policy and export and rural development goals easier or more difficult.

This committee is well aware of the new challenges facing the agricultural community as a result of recent reforms in transportation regulations. The Motor Carrier and Staggers Rail Acts of 1980 reflect the traditional transportation policy theme of minimizing public economic regulation thereby maximizing reliance on free market forces. One of the primary focuses of my office in USDA in the next couple of years is to design and implement transportation research and service programs which will assist agriculture in adjusting to and even taking advantage of this new regulatory environment.

Impoved and timely information is a very important element in making transportation deregulation work for agriculture. Along these lines, the Department attempts to anticipate the needs of all shippers including grain shippers for access to assistance in solving transportation problems. During 1980, the Office of Transportation alone handled in excess of 4,000 requests for information or limited technical assistance. These calls originated from virtually every type of agricultural transportation interest. But the limited staff of traffic managers in the Washington office cannot possibly even begin to solve all local operating or marketing problems involving transportation that seem likely to arise during a period of rapid change in transportation facilities and regulations.

Consequently, the Congress in 1980 authorized the Office of Transportation to place several transportation specialists outside of Washington to work directly with shippers, carriers, ports, exporters, and other government agencies in the field. These field agents are to be located in the regional offices of the Federal Highway Administration of the U.S. Department of Transportation.

The full resources of the Washington Staff, including transportation engineers, packaging experts, scientists, agricultural econmists, and traffic managers, will be utilized and coordinated with our efforts in the field to produce the fullest possibly monitoring and service capability consistent with our resources and program goals.

USDA's Office of Transportation also has in the development stage an Agricultural Logistics Information System (ALIS). ALIS will bring together in a single computer information system data from several sources having a bearing on the transportation of agricultural commodities and supplies. Sources include USDA's own data bases on production, sales, and markets of various commodities. These data are maintained by several different agencies within the Department. Other potential Federal sources including the Department of Transportation, the Interstate Commerce Commission, the Bureau of the Census, Department of Commerce, and the Bureau of Labor Statistics. Potential private sources include associations of carriers, trade organizations, and similar industry groups.

Available data will be analyzed to determine their usefulness in predicting transportation bottlenecks and other problems. The data which are selected will be used in a program of monitoring and reporting as well as in research and economic analysis.

The Department of Agriculture has recently updated and will soon publish an analysis of railcar and barge equipment needs to meet 1985, 1990, and 2000 projected grain movement. The Office of Transportation is also working very closely with the Federal Railroad Administration in its rail terminal and port labor/management program to improve these rail operations.

To help rural shippers cope in this new climate of deregulation, the Department of Agriculture has also developed a pilot demonstration program to test whether rural transportation services can be improved by forming transportation cooperatives. Montana, North Dakota, and New York were recently successful in obtaining USDA planning grants under this program.

Through these demonstration projects, the concept of transportation cooperatives will be tested in practical applications, such as with cooperative ownership of local railroad branchlines, trucking equipment, freight handling, and transfer facilities or vehicles for transporting rural people.

This approach was used successfully 45 years ago to establish the Rural Electrification Administration and if the pilot projects are successful we're hopeful they may be the basis for creating a major private sector initiative.

The Office of Transportation is currently supporting the preparation by university transportation specialists of eight extension-type pamphlets addressing rail deregulation and its implications for agriculture.

Smaller shippers and communities, particularly those in more rural and isolated locations, may be put at a disadvantage during this period of transition by a scarcity of expertise and information.

We anticipate that this new regulatory environment may stimulate from grain elevator operators such questions as: Is the carrier under any legal obligation to serve me? If I've got a complaint, where do I go? How can I buy from a farmer today for delivery next month when I don't know what the freight rate will be next month? How do I know my competitor up the road isn't getting preferential treatment? If he is, what can I do about it? Is it going to be easier for the railroad to abandon my line? Can I fight it at all? What do I consider in choosing another mode? Can I survive using just trucks? Should I lease or purchase equipment? If so, railcars or trucks? Should I relocate on a main line? How do I go about negotiating a rate and service contract with my railroad? What about forming a shipper association or transportation co-op? Should I combine with my competitors and build a subterminal? Are there any Federal programs which provide loans or loan guarantees for improvements in my facility, purchase of railcars or trucks, costs or relocation or buying the branch line?

It is our objective to assist both public and private interests in rural areas to improve their ability to function effectively in an environment of relaxed Federal regulation.

In the coming year, we hope to be able to improve our ability to monitor and report the performance of railroads in this new deregulated environment; to document the benefits as well as the abuses, if any. In brief, to insure that the agricultural sector has information about performance so that future regulatory proposals will be selected most rationally.

We also hope to allocate resources to improve our economic analysis and technical assistance efforts. We perceive a growing need to develop and assist in the implementation of alternative agricultural shippers strategies within a deregulated transportation environment. To survive, many agricultural shippers and receivers will have to reevaluate their current operations and management approaches and learn to market within a totally new and uncertain environment.

The challenge coming out of Washington today is clear. The opportunities for the State, city, county, individual are available, and they will need to exercise self-reliance to capitalize on them. Community action as a response to community problems is part of the very fabric of rural America. The burden and responsibility placed on local resources will be great but so will the opportunities. While the Department of Agriculture and specifically the Office of Transportation can provide some of the know-how, the greatest opportunity of all lies in the freedom and right of rural America to launch imaginative and innovative initiatives—initiatives which will lead to self-reliance and self-determination.

Mr. Chairman, in closing I would again like to express my appreciation for this opportunity to offer you some of the views of the Department of Agriculture in water-related transportation matters and the future of agricultural transportation. My office stands ready to assist you and your committee in any manner deemed necessary.

Senator ABDNOR. Mr. Boire, apparently time is running out on this badly needed lock. It looks like what, just a few years?

Mr. BOIRE. Just a few years is true, taking into account the time it takes to build such a large effort and to do the details of engineering planning that have to be done before, I would say, that a construction were underway for a new lock to be in operation before the capacity of the existing lock were reached.

Senator ABDNOR. You mean if you were to start construction in the immediate future you would barely meet——

Mr. BOIRE. We'd be very lucky to be able to make it before the existing lock reached capacity if we started right away.

Senator ABDNOR. How long would construction take?

Mr. BOIRE. Minimum of 6 years.

Senator ABDNOR. Has there been work done on this?

Mr. BOIRE. There's been a considerable amount of planning work. There's still a substantial amount of advance engineering work to be done, probably about 2 years work of advanced engineering design before construction would begin.

Senator ABDNOR. You are talking about 8 years?

Mr. BOIRE. About 8 years.

Senator ABDNOR. Regardless of how we go? What's the cost now?

Mr. BOIRE. $150 million—that's in 1980 prices.

Senator ABDNOR. Do you think the Federal Government could possibly afford this project without user fees?

Mr. BOIRE. I would respond to that and say that when one looks at the investment decision where the national economic view, we find that the gains and efficiency from the national point of view are greater than the cost of the resources to put the locks into operation, so in that sense I would have to say that a construction would be to the Nation's welfare, the Nation's well-being to have a new lock regardless of who paid for it.

Senator ABDNOR. In your statement you mentioned that the users of the Columbia-Snake would be at an advantage relative to user fees because it spreads across the board? Will it be an advantage to us in this particular route?

Mr. BOIRE. Only in the sense that people in Montana, those that would have to transit a greater segment of the Columbia could be subsidized in an operation with a nationwide fee. They only would be charged for each segment they would have to use. Somebody else would be paying part of the cost. And a user from Montana would be benefiting—would be relatively better off in a segment fee basis.

Senator ABDNOR. The increase is going to be so great that on paper it makes it sound like quite a profitable move, because your freight will almost double in the years ahead with the additional coal and grain and the reduction of time. What did you say—4½?

Mr. BOIRE. Four-and-a-quarter hours and by 1990 about a 12-hour delay time on Bonneville Lock.

Senator ABDNOR. Didn't you say that the Columbia-Snake system requires no dredging?

Mr. BOIRE. No dredging above Portland. But below Portland there is a significant amount of dredging.

Senator ABDNOR. How does cost here compare with the Mississippi or the Missouri in shipping and maintenance costs—less on this stretch?

Mr. BOIRE. The maintenance costs of the Columbia River is significantly less than that of the Mississippi and Missouri. I have a number in my testimony that I read which I could repeat.

Senator ABDNOR. Let me ask Ms. Roscoe.

I believe you said if we don't have the user fee, we are going to be reducing railroad efficiency. Is that what you are telling me? Can you just explain that? Didn't you imply that if we didn't put the user fees into effect that we would hurt railroad efficiency?

Ms. ROSCOE. Well, I said that if we continue the subsidies to waterways, we would greatly reduce the viability of other modes of transportation particularly the railroads.

Senator ABDNOR. Well, did you find that part?

Mr. BOIRE. Yes, sir. I was speaking with regard to the shipment on the Snake operation and maintenance as compared to the Mississippi and Missouri. For the Columbia-Snake operation maintenance for 1980, my comment was with regard to the estimated recoverable cost of the operation and maintenance. On the Columbia-Snake River as opposed to the Missouri and Mississippi and what I said was that the cost submitted for 1982 on the Columbia-Snake is about $10 million and for the Missouri and Mississippi about $74 million. That's for the shallow-draft portion. The deep-draft portion of the Columbia River is about $12 million for 1982 and by comparison for the Mississippi, the deep-draft portion recoverable cost amount is estimated to be, for 1982, about $45 million, so there's considerable difference.

Senator ABDNOR. Thank you. Back to Ms. Roscoe. You testified to subsidize the waterways will greatly reduce the viability of other modes of transportation, particularly the railroads. What do you mean? Everyone is going to use water?

Ms. ROSCOE. No, Mr. Chairman. I think the point was that we've deregulated the railroads and we no longer are subsidizing the railroads so we shouldn't have to subsidize the waterways, either.

Senator ABDNOR. You feel there's no subsidies to the railroads? I mean they haven't been subsidized?

Ms. ROSCOE. They have in the past because——

Senator ABDNOR. Are they today?

Ms. ROSCOE. I really don't know. I suppose so.

Senator ABDNOR. Well, let me ask you this: can you explain to us what your office is going to be doing to help agriculture adjust to change and deregulation? Do you feel it's been beneficial to our agriculture? I was wondering if you see, down the road, deregulation making it better for farmers?

Ms. ROSCOE. Well, Mr. Chairman, I think our office is there to serve. We're not really engaged in making transportation policy or agricultural policies. We are there to serve the agriculture, the farmers in coping with the new deregulation policy that has already been enacted into law. And that's why we are planning a deregulation team in the next year that will conduct economic analysis and try to help the farmers cope with the new regulatory environment.

Senator ABDNOR. I guess my concern was different. I think to date to say deregulation has been of any great benefit to agriculture—maybe I haven't looked at it close enough, but, you know, we still have a lot of problems. And I thought you said from your testimony you are assisting in that area.

Ms. ROSCOE. We recognize the problems and we also feel some challenge that deregulation has brought to agriculture. And we are there to serve and provide the technical assistance so we can find the benefits to agriculture and help agriculture cope with the new environment.

Senator ABDNOR. On that Department of Transportation study that will be coming out soon, has the Corps of Engineers had input in any way?

Mr. BOIRE. Yes, Senator. We have had ample opportunity from the very beginning and we have actively participated and still are.

Senator ABDNOR. As long as you are in that area, why is it so difficult? Why couldn't you readily come up with a study on your own? You are certainly in the best position. I mean trying to figure out and direct the costs and construction, maintenance, and do it equitably—that's at least my biggest concern when you talk about user fees and payoffs and all of this. I don't know. Are we taking into consideration much of the projects in the past have been built to serve navigation? It's been principally for flood control.

For instance, how do you direct that out? Have you got a good formula? Have you figured how to make this thing equitable—how much goes for recreation? Are we going to charge everybody, or how is this going to be done?

Mr. BOIRE. Well, Senator, there are established policies for what we call cost allocation procedures. Those procedures were established long before this proposed legislation. That's taken into account and the costs that are incurred specifically for our purpose and the benefits that are derived by other purposes and the multiple purpose projects—there's a standard formula that has to be used in cost allocation procedures. That standard formula would be applied within the framework of this legislation.

Senator ABDNOR. I was just wondering about deep water ports. That's different than inland water fees. It's interesting how we talk about the total construction costs coming from user fees and part of the maintenance but how about the ships that come into the ports that don't need the 40-foot drafts? Are they going to be paying for that? Have you given that kind of thought that went into your study? Are we just going to spread the costs out whether we need it or not?

Mr. BOIRE. The legislation that was drafted does not definitely address itself to the mechanics of implementing the fee. The problem about which ships would pay what portion of the costs because of the draft, for example, has not been addressed, either.

Senator ABDNOR. That's what's bothering me. When I saw the administration come up with a whole host of figures, where do they get them? My biggest concern on all of this is being equitable and fair. I guess we are all realizing that some of this cost sharing is going to have to come from the State users.

I think you agree it's got to be very carefully laid out so we know we are not dealing unfairly with some areas. I am close to agriculture and equity is really important because farmers just can't stand to have any additional cost that can't be directly attributed to them.

Senator BAUCUS. Thank you, Mr. Chairman. Mr. Boire, what figures has the corps worked up in allocating costs to the different users? I mean have you developed a comprehensive or near comprehensive analysis of which you are holding within your department? I'm not saying you should necessarily have it now but to what degree has the corps analyzed the cost and benefits of various proposals here?

Mr. BOIRE. We are awaiting the outcome of the ongoing commerce and transportation study. What we have done so far within the Corps of Engineers is to make an estimate of how much of the cost of annual operation and cost of various river segments under the draft proposal are recoverable. We have not gotten into the mechanics of how such a fee, how much such recovery would be obtained. We have not studied specifically lockage fees as opposed to fees per hour or fees per mile or time of tows or any other such proposals which are under this legislation, so the only thing that the agency has done is to look at the existing cost of operating the system and identify how much of that is associated with commercial navigation that would be recoverable.

Senator BAUCUS. Are you in a position to give a rough ballpark figure of the greatest percentage Montana will have to pay under a segment system rather than a flat or fuel tax or fee system or license system?

Mr. BOIRE. No, Senator. I am not able to estimate that for a couple of reasons: one of them, of course, being the segments haven't been defined. One would have to know what the segments are for users.

Senator BAUCUS. Will the corps soon be in a position to make a rough estimate and answer that question?

Mr. BOIRE. The corps could at this time estimate for the total Columbia-Snake system how much of the operation and maintenance costs are recoverable. It would not be able to attach to that any particular user only in the sense that we could identify how much of the annual estimated operation maintenance cost could be recoverable under that legislation.

Senator BAUCUS. But it is true that Montanans, since we are at the end of the line, are paying significantly more than would other users further on down?

Mr. BOIRE. I have come to that same conclusion.

Senator BAUCUS. What is the corps' position as opposed to the Department of the Army administration on the user fees?

Mr. BOIRE. There's no difference.

Senator BAUCUS. Was there any discussion with the administration on this point?

Mr. BOIRE. On the point of user fees?

Senator BAUCUS. Whether or not user fees is an approach that the Congress should enact.

Mr. BOIRE. The Corps of Engineers has had considerable input into the idea of user fees and the Department of Army did draft legislation dealing with it.

Senator BAUCUS. Did the corps argue for the user fees or actually argue against it?

Mr. BOIRE. The corps is very much in support of the user fee concept as part of the Department of the Army.

Senator **Baucus**. If you can't answer the question, I'd rather you tell me that than give me a nonanswer.

Mr. **Boire**. It's a coherent proposal that makes good sense in economic terms.

Senator **Baucus**. But my question is did the corps advocate user fees or did it not or can you answer that question?

Mr. **Boire**. I can't answer that question.

Senator **Baucus**. OK. Thank you. May I conclude something from your answer?

Mr. **Boire**. Yes, sir.

Senator **Baucus**. Thank you. Now, Ms. Roscoe, could you please provide to me your office's answers to the questions you listed in your statement that should be asked generally for producers. Could you answer those questions yourself?

Ms. **Roscoe**. We can try. I think those are some of the questions that we expect to get and are going to be providing that answer.

Senator **Baucus**. I'd like you to answer them as best you can. I am a little concerned with your testimony here because a few years ago I and others worked hard to establish the Office of Transportation within the USDA. I'm sure you have read the Congressional Record and committee report in creation of that Office. And you know the reason we and others pushed for that Office and got it enacted is because we felt within the USDA there should be some office strenuously supporting agriculture with respect to transportation.

And yet I hear your testimony this morning say, we're going to issue these pamphlets and reports and so forth. And I don't hear you standing up and being an advocate for farmers and agriculture. And in fact, recalling Senator Abdnor's questions, you just say, sure, we'll take anything that happens and tell people how to adjust, to cope with bankruptcies and how to cope with economic failure. But that's not what we had in mind when we created the Department. And I'm wondering when, in fact, are you going to advocate, within the administration, better transportation systems for agriculture.

I don't hear it so far. I will be very candid with you.

Ms. **Roscoe**. I regret you are left with that impression. We are very much aware of the support you gave the founding of the Office of Transportation and that farmers are our constituents and at this point the Motor Carriers Act and the Staggers Act are law. And so now we have to go about reprograming some of our resources and that's what we are trying to do over the next year, to assist the farmers in handling that new operation.

Senator **Baucus**. Let me ask the same question I asked Mr. Boire, which is, did the Office of Transportation argue against user fees within the administration? Did your Office argue against user fees or did you support them?

Ms. **Roscoe**. We didn't argue against them. We just wanted to be sure that agriculture was treated equitably. That is, as Senator Abdnor said, that is our main concern that we only pay for the benefits we receive.

Senator **Baucus**. Do you think agriculture is harmed or helped with user fees and why?

Ms. ROSCOE. I don't feel right now I'm able to answer that question. A lot of our conclusions are going to be based on the result of the DOT study. And we really haven't reached anything until we see that.

Senator BAUCUS. The purpose of your Office is to stand up for agriculture and advocate positions and policies within the administration to help agriculture. And frankly, what I hear is that administration setting some policies and then dictating to you what you say. You are coming back and giving us the administration's line. Maybe within the administration you are arguing in favor of your Office. I don't know. I don't see you saying that. If you can say that, that alludes some of my fears.

Ms. ROSCOE. I can say that we have argued that agriculture be treated equitably while we support user fees as everybody should pay for the benefit they receive. But we want agriculture to be treated equitably.

Senator BAUCUS. What I mean is you will take whatever, deregulation or any other policy and then we just hope everybody is treated fairly after they have been given the short end and distribute pamphlets on how to adjust to economic hardships. That's what I hear you saying. Is that an incorrect or a correct impression?

Ms. ROSCOE. Well, I think as future legislation comes about, we will argue for agriculture. But right now, we are faced with implementing the Motor Carriers Act and Staggers Rail Act. I was not at the Office before those acts were put into law.

Senator BAUCUS. You were at the Department when the user fee proposal was suggested?

Ms. ROSCOE. Yes.

Senator BAUCUS. That's what I am talking about. Did your Office argue for or against user fees?

Ms. ROSCOE. We argued that if that was the policy that agriculture be treated equitably.

Senator BAUCUS. You didn't answer my question. Did your Office argue for or against user fees or did you take a neutral position?

Ms. ROSCOE. In general, we supported user fees.

Senator BAUCUS. You argued for the concept?

Ms. ROSCOE. As long as it was equitable to agriculture.

Senator BAUCUS. And you think it's equitable?

Ms. ROSCOE. We are waiting to see what the results of the DOT study will be.

Senator BAUCUS. Thank you very much.

Senator ABDNOR. We are running behind time, obviously, here. We are supposed to be through the next panel by the time our break came, so we are going to break at this time. We will be in recess until 1:30.

I want to say when we come back, we're going to move more rapidly. Beginning with the next panel, we're going to put a time limit on of 5 minutes per person and that will allow some time for questions.

We are just going to have to do it if we are going to give everyone a fair chance to be heard. So we will recess now until 1:30.

AFTER RECESS

Senator ABDNOR. The subcommittee will come to order. We'll start off with panel No. 4 made up of Mr. Avery, Mr. Schmadera, Mr. Lindstrom, and Havdahl. If they will come forward—I don't like to be difficult but if you don't mind, we'll hold you each to 5 minutes.

Is there any particular order you'd like to go in? Mr. Avery, you are listed first.

STATEMENT OF RALPH O. AVERY, BURLINGTON NORTHERN RAILROAD

Mr. AVERY. Thank you, Mr. Chairman. Mr. Chairman, Senator Baucus, my name is Ralph O. Avery. I'm assistant vice president of pricing for Burlington Northern Railroad. I appear here on behalf of Burlington Northern Railroad. And I'd like to thank the subcommittee for giving us the opportunity to address our views on the subject.

Senator Abdnor and Senator Baucus have stated, "A carefully considered inland waterway policy is vital to the Nation's transportation system."

Mr. Chairman, we fully agree with that statement. The fact is we do not have a national water policy or a national water position. We have managed to mismanage our water resources for almost 200 years, directly bleeding the Federal Treasury, contributing to an unconscionable national debt and indirectly weakening our national transportation system through economic distortion.

I have several criticisms of fragmented policies which we employed over these 200 years but I will pass them up.

There is a crying need for reform. There is an urgent need for adoption of a national policy and that policy should be those benefited by water projects should pay for them, both construction and operating costs, rather than the public that is taxed for subsidies.

Burlington Northern, without qualification, supports the administration's proposal to recover from beneficial users the full costs of future operation and maintenance and future construction expenditures made for navigation purposes on the Nation's inland navigable waterways.

Your committee, in conserving the issue of user charges on the inland river system, has shown a particular interest in the effect of user charges on the Snake-Columbia River system on the economy of Montana by this hearing in Montana. Let me state for the record that since the enormous sums of money already expended on the Snake and Columbia Rivers systems have had no measurable beneficial effect on the economy of Montana, an increase in user charges on that system would have no measurable negative effect on Montana's economy.

Statements that low cost transportation on the Snake and Columbia Rivers result in a higher return for farm products to Montana farmers cannot stand scrutiny. The belief that the lower charges—not lower costs—for the transportation of grain from Snake River transload facilities to Columbia River ports are reflected in the price paid Montana farmers is pure myth. Time after time, in study after study, in verified statement after verified statement filed with various agencies, in particular the Interstate Commerce Commission, we find the price paid for grain to the Montana farmers is the Portland price less the rail rate and handling charges.

When the farmer sells his grain to the local elevator, he does not know whether that grain is shipped to eastern markets, flour mills in Montana, Washington, Idaho, Oregon, or California, Pacific coast ports for export or to terminals in Montana for consolidation. Whether it moves all rail, truck-rail, truck-barge or camel caravan, he receives Portland price less the published rail rate to Portland and handling charges. Therefore, the public moneys spent on the Snake and Columbia Rivers benefit only the very few users of that system; namely, the barge lines and a few merchandisers and not the Montana farmers.

Let me just for a moment point out some of the negative effects of the Snake and Columbia Rivers on Montana producers as well as on producers of many other States.

I wish to point out and emphasize that Montana taxpayers have unwillingly contributed to the demise of the Milwaukee Railroad by providing the waterway industry with a free ride, thus conferring on that industry a competitive advantage not otherwise available in the free market. The Department of the Army Corps of Engineers report shows that 1,276,000 tons of grain moved by barge through Columbia River's Bonneville Dam during 1960. In 1980, this movement grew to 5.3 million tons. Much of this grain traffic was diverted from the Milwaukee Railroad. The traffic volumes thus attracted to the river at the expense of the Milwaukee and other railroads reduced the traffic base causing fewer units of traffic to bear the constant fixed cost, thus an increase in per unit costs. The need to pass along these higher costs caused a further diversion of traffic and the inevitable result.

The bankruptcy of the Milwaukee Railroad and the Rock Island Railroad was due, in no small way, to the diversion of traffic from these and other railroads to barge operators on the Snake-Columbia Rivers and the Mississippi Waterway. This diversion was not the result of inherent cost advantages of the water carriers, but rather to the competitive advantage provided by Federal subsidies distributed by the Corps of Engineers.

Notwithstanding the Government's capital financing and subsidizing of highway and inland waterways, the railroads must price its services in line with these other transportation modes in order to compete effectively. When rail rates are depressed on a particular segment of traffic because of subsidized competition, other segments are required to bear a larger portion of the fixed costs. If the railroad can no longer compete with the subsidized barge carrier and must forego that portion of the traffic, the remaining traffic must bear a still higher portion of the fixed costs. And so we find the rail carrier faced with intensive subsidized barge competition, unable to meet its fixed costs, forced to reduce its level of service incurring a further loss of traffic and eventually the carrier or the region it serves seeks Federal aid.

When a region or a transportation mode receives an artificial economic advantage provided by the taxes on other regions and other transportation modes disadvantaged by this transfer of benefits, then the latter will seek redress in the form of Federal aid. The economics of these piecemeal policies is not only unsound, it is suicidal.

We're not opposed to waterway projects if the beneficiaries are willing to bear the cost of the project. We can only assume that if under these conditions the project has a positive cost benefit ratio it will be built by the beneficiaries. Those that are uneconomic would not be built.

We conclude that the assumption that barge transportation is the least cost mode is entirely unjustified when we consider total resource costs and is even rejected by the barge industry through their claim that recovery of cost will destroy the waterway system. Thank you very much.

Senator ABDNOR. Thank you, Mr. Avery. You did an excellent job.

Who's next—Gary?

STATEMENT OF GARY SCHMADERA, PORT OF LEWISTON, LEWISTON, IDAHO

Mr. SCHMADERA. Thank you, Mr. Chairman. Senators, Mr. Chairman, I am Gary Schmadera, assistant manager of the Port of Lewiston, Lewiston, Idaho. I am appearing here today to read into the record a statement of Carl C. Moore, manager of the Port of Lewiston and chairman of of the Idaho Transportation Board.

I am Carl C. Moore. I serve as chairman of the Idaho Transportation Board and as manager of the Port of Lewiston. Proposals for user charges which have been under consideration in recent months are a cause for serious concern. Such charges could totally upset the present transportation system of this country with extreme damage to the whole economy.

It is erroneous to assume that waterways are of concern only to the ports and the operators of waterborne equipment. In fact, the waterways of this Nation are of major importance to every producer and consumer in the Nation—to all citizens. A sudden, drastic alteration of charges for transportation could be disastrous for farmers, papermills, sawmills and others.

It is not possible to really assess the total effect of imposing user charges which would fully recover all costs. It is certain that sudden, ill-considered change could have an adverse impact on our foreign trade balance and on domestic producers who already face serious problems.

The commerce of this great Nation rests upon an adequate transportation system. Waterways are an integral and essential part of that vital system. The primary objective of any waterway or port legislation should be to improve the Nation's transportation, to improve our position in world markets, to improve the economic life of this Nation.

Any legislation affecting user charges on our waterways should be such as to: (1) maintain a viable, competitive transportation system; (2) minimize inflation; (3) minimize the adverse impact on U.S. competitiveness in world markets; and (4) minimize the shift of cargo to foreign ports.

It seems certain that more study is necessary, but it also appears that some consideration should be given to the following: (1) partial, rather than full cost recovery user charges; (2) phase in any charges gradually over a period of years; and (3) assess any charges on a broad base—such as an excise charge on all foreign trade.

Legislation recently introduced by Senator Mark Hatfield of Oregon appears to be responsive to some of these vital requirements.

The Inland Waterway Revenue Act of 1978 assessed the first charge for use of the inland waterways. Because of the potential far-reaching effects of such charges, the same act in section 205 called for a national study of the economic effect of user charges. This study is now in progress and is to be presented to Congress by September 30, 1981. No further congressional action on user charges should be taken for a least 6 months after the section 205 study is completed and submitted. This will permit a review of the study by interested parties and full consideration of the major impacts which are involved.

In this statement, I have urged caution and care in consideration of waterway user charges. We have conducted commerce on our waterways through our entire history with charges assessed only in the past year. Haste is not needed now. Full consideration of all impacts is a must. Hasty actions could bankrupt Montana wheat farmers and destroy complete segments of our economy.

Thank you, Mr. Chairman.

Senator ABDNOR. Thank you. The next one is Mr. Lindstrom.

STATEMENT OF STEVE LINDSTROM, PACIFIC NORTHWEST WATERWAYS ASSOCIATION

Mr. LINDSTROM. Thank you, Mr. Chairman, for the opportunity to appear here today. I am delighted that you and Senator Baucus, among others, have taken the interest in the water spectrum as a topic, rather than a series of available issues.

I'm Steve Lindstrom, president of Pacific Northwest Waterways Association, a regional interest group reflecting opinions in Montana, Idaho, Oregon, Washington, and Alaska relating to the comprehensive planning and development of water-related land resources. I am here today for the reason of frankly speaking to the interdependence of one water use on another and the impact that these have throughout our regional economy and our national well-being.

I speak specifically to the proposed legislation to recover the costs of the waterway and improvements.

Frankly put, PNWA has reached three reasons: First, the levels of costs and recovery of the waterway and harbor improvements. Bluntly put, PNWA is opposed for three reasons: first, the levels of costs and recovery are unknown and open-ended. Second, disruption, diversion and imbalance of cargo movement would occur if they were imposed. And third, no provision has been made or even drafted to receive, account for, allocate, or spend the moneys collected.

Our objections spring from philosophic results illustrated by the following: The Federal Government in a commencement for the development of a national transportation system. In the past, Congress has been committed to the economic health and well-being of our region of our country through a variety of methods successfully employed, including the financial support of the canalways, highways, railroads, and airports.

Non-Federal interest and specifically private enterprise have responded in kind with tremendous additional investments to make the system work. This success has worked and continues to work. Today we see proposals for cost recovery on one narrow ark of the transportation spectrum.

Still arguments are set forth that the Treasury needs more money, that the waterways and harbors give unfair competitive advantage and make inefficiency result.

The opposite is the case. All transportation modes enjoy Federal largess. Usually and grandly paid by a populace which gratefully benefits from your national intermodal transportation system.

To save a moment, I will associate myself with the reasons listed by the Port of Lewiston to be considered in transportation legislation and I will add that any such considerations all speak to minimizing disruption in the relatively competitive position of ports and that we recognize that the inland, shallow-draft and deep-draft waterways together with interfacing modes do make a national transportation system.

User charges and cost recovery mechanisms as now proposed would cripple the system in the Pacific Northwest region, not only Idaho and Washington, but Montana, South Dakota and Iowa as well. Legislative consideration of deep and shallow-draft waterways must not be considered separately. That consideration currently reflecting congressional activities is in error and must be corrected.

The lanyard between those two separately definable but functionally inseparable systems must be maintained. In the future we see severe problems, especially for agriculture if those proposals are imposed on only a few narrow parts of the transportation system. One less transportation alternative, should another close shop, leaves the farmers, especially in land-locked States, to market his crops at the mercy of the remaining carrier. And that carrier might decide for him whether or not he can afford to continue his productive efforts.

Previous testimony has noted that the rail rate to Portland is the determining factor in the price that the Montana farmer gets net for his grain. That is not the consideration. The consideration is what would that rail price be whether or not the truck-barge competitive modes choose to hold those rail rates down. The prospects for the export of energy are diminished and the waterways and harbors suffer, thereby cutting into a prominent goal of the administration to improve our worldwide production in the energy picture and to help our allies become less reliant on unstable areas of the world.

There are a number of other specific problems, many of which have been spoken to in questions this committee has examined earlier today, some of which provided satisfactory responses to me and some of which I will follow up with some written testimony before the record closes.

Senator ABDNOR. Fine.

Mr. LINDSTROM. In closing, I would suggest that your deliberations on these vital matters continue but please don't proceed as if you are being stampeded. We are not in a crisis situation. Our current ways of doing business will sustain us through this discussion. Let's wait for the section 205 study, evaluate it and to the degree necessary supplement it, then let us proceed to a resolution of our concerns with an eye toward competitive transportation policy, its interrelationship with national water policy and national energy policy and determine a final resolution or policy that is even more fair and equitable than the current policy employed.

Thank you for your kind attention.

Senator **Abdnor**. Thank you, Mr. Lindstrom. Our last witness is Mr. Havdahl.

Senator **Baucus**. Mike, please.

STATEMENT OF MIKE RICE, MONTANA MOTOR CARRIERS ASSOCIATION, INC., ACCOMPANIED BY B. G. HAVDAHL

Mr. **Rice**. Thank you, Senators. My name is Mike Rice. I am the president of Transystems in Great Falls and I'm here in the stead of Ben Havdahl, who, although he is here, he had other activities that kept him from preparing until the last minute.

I am the president of Transystems in Great Falls and I am vice president of the Montana Motor Carrier Association. I am here today representing both of those organizations. The Montana Motor Carrier Association is a trade association representing nearly 400 members of the trucking industry in Montana, many of whom are engaged in the transportation of grain and other commodities. Our own company has been engaged in the transportation of products to and from the Pacific Northwest waterways since the early forties.

I am sure that it seems to many that the life of the land-locked, Montana-based motor carrier is very remote from the day-to-day workings of the inland waterway system. Unfortunately, this is simply a false appearance. The maintenance of a secure and efficient waterway system very directly affects the hundreds of trucks who haul many commodities, especially grain, to the rivers and indirectly all truckers who must depend on the general economy of Montana for their survival.

The agricultural industry, particularly the grain industry, is probably larger than all the rest of the industries in Montana put together. Without the truck/waterways system, the Montana grain shipper has no viable alternative to the single rail system that now exists in Montana. Nor would those hundreds of Montana shippers who depend on grain for a backhaul to ease the expense of their truckload and even less-than-truckload lot freight be able to exist in Montana without those waterways to which they transport their backhaul grain.

The importance of the motor carrier/waterway system to Montana has been clearly displayed on four separate occasions. They were all recorded in terms of truck/waterway system market share increases to nearly 50 percent and rail rate decreases in the mid-sixties, 1971, 1976 and again very recently. The reaction of the railroads to this high-market penetration by the truck/waterway system on all those occasions was to significantly reduce the freight rates on Montana grain in order to stay competitive with the truck/waterway system.

I think it is terribly important for the regulators of our motor carrier and waterways systems to recognize the multiplier effect of seemingly minor adjustments in that system. It has long been my feeling that on the longer distance, high volume moves of grain from Montana to the north coast, that the truck/waterways system is not truly competitive with rail, but simply provides primarily a ceiling for rail rates and secondarily an alternative to the other sole mode of transportation available. As an example of this multiplier effect, I would like to suggest that if the truck/waterways system is handling 10 percent of the grain movement from Montana, that this system provides a rate ceiling on the 90 percent handled by rail, hence any movement in the truck/waterways system rates, either up or down, will be multiplied nine times because of the effect that it will have on the ceiling imposed on the rail transported grain.

Another example of the inland waterways system on Montana grain rates lies in the comparison between the grain rates from Great Falls, Mont. and Lewiston, Idaho, to Portland. Montana is land-locked and Lewiston, Idaho, is on the Columbia River system between Montana and Portland. The rail mileage from Lewiston to Portland is 32 percent less than from Great Falls to Portland, yet the freight rate from Lewiston, Idaho to Portland is 60 percent less than the freight rate from Great Falls to Portland.

I offer you these examples not to be critical of the railroads, but to show the tremendous impact that waterways have on a land-locked State such as Montana.

On behalf of our company and the motor carriers industry, I would like the committee to take particular cognizance of that multiplier effect. As the first speaker did this morning, I would like to depart for a minute just from the prepared testimony. I think some things were said I just shouldn't let go unnoticed. That's the continuing bludgeoning of other industries by the railroad regarding subsidies. I believe that to be a distortion and that simply has got to stop.

The highway industry has long paid cash in advance and provided the Federal Treasury, in fact, with cash surpluses on what is alleged to be a Federal subsidy. The fact of the matter is cash in advance. The rails act as if there is no subsidy to their industry. I think if you look at the FRA budget of $3.7 billion, you will find that's not true. If you look at $1.2 billion in rail loans and guarantees that are outstanding, almost $450 million of that past due, you will find that not to be true. I think if you look at the $95 million a year spent on research facilities to improve efficiency and operation of rails shows that these are not true.

They do have subsidies, significant subsidies. They are not paid for cash in advance. If you compare, for instance, what one of my trucks pay to an automobile, you would find out it's a 25-to-1 ratio. It's very, very significant.

I am getting tired of rails showing up at every single hearing in the Montana Legislature to oppose basic truck issues. I think it's time that the rails got over their attitudes that certain products and money are, quote-unquote, money in the bank for the railroads. I think it's time we recognized that railroads are each other's best customers, not shippers.

The last 2 years there have been two very significant transportation crises in Montana. One was the loss of the Milwaukee, a rail-oriented problem, and the other one was the loss of the BN, another rail-oriented problem.

I think the motor carrier industry has no Conrails, no Amtrak, no FRA's. And I suspect that it's about time that the railroads began to commence their service on the basis of price and service as opposed to beating down the other people.

That would end my comments.

Senator ABDNOR. Thank you. Thank you all. I'm sure Mr. Avery will be ready to go for another 5 minutes if we gave him the chance.

Let me ask you this, Mr. Avery, I think you insinuated, didn't you, that the barge people could absorb the customer's fee without assessing additional cost to the shipper?

Mr. AVERY. They could certainly absorb a large part of it, how much, Mr. Chairman, I don't know. Because you don't have access to many of their reports. As a matter of fact, we don't know what barge lines charge. They don't charge everybody the same. They have contracts. This is not information that's available to everybody. They have been unregulated since the Water Carriers Act of 1940.

Senator ABDNOR. But you definitely believe there is room for barges, shippers, railroads, truckers—the whole works in this system? Is it simply impossible to compete?

Mr. AVERY. We are competing with the Federal Treasury and that's almost impossible to compete with. The Milwaukee and the Rock Island did.

Senator ABDNOR. The mainlines were broke. We don't have waterways so that wasn't going to save them. I've got a hunch the Rock Island was the same way. Maybe it's because the people weren't using them more.

When you are assessing these costs, you'll be fair enough to think it out so the cost of that project will be apportioned. That definitely helps. You couldn't try to assess everything against the cost of a water project, could you?

Mr. AVERY. Definitely not.

Senator ABDNOR. I wondered for a minute. How do the rates compare, given a bushel of grain from here to Portland? How does that compare between rail and barge? Do you have any idea?

Mr. AVERY. I think right now national truck-barge rates from, say, Great Falls to Portland are lower than the single car rates but they are higher than your so-called multicar and unit train rates which we established in December 1980. But there are still some—still would be truck-barge movements. You have to take into consideration that some of that grain is going back as backlog by motor carriers. And when they go backlogging for gas money, going back then, they can go at some very low rates which is never made public.

Again, motor carriers have been completely unregulated in the transportation of agricultural products since the Motor Carriers Act of 1935.

Senator ABDNOR. How do you answer that one, the difference in the rate charges between Great Falls and Portland, and what was the other one?

Mr. HAVDAHL. Eastern Colorado and Nebraska, Lewiston and Nebraska.

Mr. AVERY. Lewiston, the rate we maintain from Lewiston to Portland and Lewiston to Seattle, which is water-compelled, it does return us our variable cost but very little in fixed cost. And since all our fixed costs are variable costs and something on our investment has to be returned, therefore, you will find—you have to have other commodites in other regions paying a larger portion of the fixed cost. They're water-compelled rates. They're rates we decided we want to stay in to make some contributions and not a satisfactory construction but we're better off having something than nothing, so the rates there are water-compelled rates.

Senator ABDNOR. Strictly because of competition, in other words?

Mr. AVERY. That's the only reason, Mr. Chairman.

Senator ABDNOR. You mentioned subsidies a number of times. It has been mentioned by other participants, you are not arguing railroads are not subsidized at all, are you?

Mr. AVERY. I don't think that you can deny the fact that in our early history we were subsidized. However, we paid back those subsidies. Barges have not paid them back and so far we look at the taxes that are assessed for the first time in 1980, return even through 1985 when the 4 cents becomes 10 cents, it will be a miniscule return or recovery.

On the other hand, Senate investigation boards and two or three other arms of the Government have shown in department reports that the railroad repayed in full with interest the so-called land grants.

Now, Mr. Rice, my very good friend here, mentioned the FRA $3.5 billion but he has to take into consideration that a lot of the money that's been spent there is where the Federal Government decided to use transportation as a matter of social policy. Most of that has been spent in the Northeast corridor. When you take out the Amtrak money and so-called Conrail, then you find there's not much of that money left.

Senator ABDNOR. How about that railroad retirement thing?

Mr. AVERY. The railroad retirement was through the generosity of Congress—at the insistence of labor, not for the railroads.

Senator ABDNOR. You will be willing to absorb that, is that right, if it got tossed back into your accounts?

Mr. AVERY. I think it should be back there because I don't think railroad retirement should even be there. Congress granted that, not the railroad.

Senator ABDNOR. I suppose you could say it's the Government but I recall one of the bills we passed had a sizable amount of money for retraining and retirement but something would have to be worked out. In this day and age what you may think is only right and proper for business doesn't always end up that way in the negotiation that goes on. But if we're going to go on and take your subsidies for one and all even the trucking industry would probably have to look at this thing a little more.

You can argue about all the fees you pay to keep up the roads. The highway interstate system is going to pieces and most of it could be attributed to trucking. But I guess if you start arguing about who's getting subsidies here, you could have quite a discussion.

Senator BAUCUS. Senator Abdnor has asked some of the questions I was going to ask. I'd like to rework some of the old ground that's already been covered here.

Railroad retirement contribution by the Government is a subsidy. Is it not?

Mr. AVERY. Not to the railroads, no, sir.

Senator BAUCUS. Why is it not?

Mr. AVERY. Because the railroad didn't ask for it. They opposed it and the increase in benefits were granted by the Federal Government. And since we have the golden rule—he who furnished the rules must ride the gold, then the Federal Government should put up the money. But if you look at the history of the railroad retirement program, it's been distorted. It's been mismanaged—all because of the activities of Congress.

Senator BAUCUS. Back up. What is the amount of Federal revenue that's contributed to the railroad retirement pension plan? How much annually to the railroad industry are Federal revenues contributed to that pension fund?

Mr. AVERY. I'm sorry, Senator, I don't have those numbers. But it's considerable.

Senator BAUCUS. About $310 million, isn't it?

Mr. AVERY. Probably is. I couldn't say. I don't have those numbers.

Senator BAUCUS. $550 million—a third of a billion dollars that the Federal Government gives to the railroad industry to help pay for the pension plan. Is that not correct?

Mr. AVERY. No, that is not correct.

Senator BAUCUS. Why is it not?

Mr. AVERY. You give it to the pension, not the railroad—sorry, Senator.

Senator BAUCUS. Do you know how much is given the barge industry pension plan?

Mr. AVERY. To my knowledge, they don't give anything to the barge industry, Senator.

Senator BAUCUS. Does the barge industry contribute to their pension fund and employees then pay the other portion to their pension plan?

Mr. AVERY. I really don't know.

Senator BAUCUS. Let me ask another question: How much does a railroad contribute to the railroad's employees' pension plan as opposed to the funds that the Federal Government contributes?

Mr. AVERY. I'm sorry, I don't have those numbers. But I can get them and submit them for the record.

Senator BAUCUS. Can you give me a rough approximation?

Mr. AVERY. No, I couldn't.

Senator BAUCUS. My question is: What percentage of the pension is paid for by railroad employees, and what percentage by the railroad itself, and what percentage by Uncle Sam?

Mr. AVERY. I believe right now the employees pay 8¼ or 9¼ percent.

Senator BAUCUS. Of their wages?

Mr. AVERY. No, it's——

Senator BAUCUS. Of a total contribution employees pay about 8 or 9 percent, is that right?

Mr. AVERY. That's about correct, yes. And that is matched by the industry and there are some other additives there.

Senator BAUCUS. Employees pay 8 or 9 percent and that's matched by industry. That means the industry pays 8 or 9 percent. Let's be generous and take a total of 20 percent, but Uncle Sam pays the balance of 80 percent?

Mr. AVERY. No, Senator, that's not so.

Senator BAUCUS. What are the respective percentages, then?

Mr. AVERY. You must remember that the railroad employees' contribution is a percentage of his present salary. That's something on a percentage of his pension.

Senator BAUCUS. Let's ask the question again so we understand each other. Let's take the annual amount that is paid into the employees' pension fund. Now, of that total annual amount, what percent is paid by railroad employees, what percent is paid by the industry, and what percent is paid by Uncle Sam, and what percent is paid from other sources? Can you answer that question, roughly?

Mr. AVERY. I cannot answer that question.

Senator BAUCUS. You're been in the industry. You must have some idea.

Mr. AVERY. I can give you an estimate. The employer portion is around 8 or 9 percent.

Senator BAUCUS. Of the total annual contribution, is that right?

Mr. AVERY. Yes.

Senator BAUCUS. Now, what percent does the industry pay in?

Mr. AVERY. Slightly higher than that, but I'm not too sure.

Senator BAUCUS. 10, 11?

Mr. AVERY. About 12 percent.

Senator BAUCUS. And what does Uncle Sam pay?

Mr. AVERY. I don't know.

Senator BAUCUS. What percent does anybody else pay?

Mr. AVERY. I don't have the slightest idea, sir.

Senator BAUCUS. You are telling me, as a railroad employee for years and years, you don't know—do you know who the major contributors are to the railroad employees' trust fund?

Mr. AVERY. Senator, I don't even know what my pension will be and I couldn't tell you how much I pay in.

Senator BAUCUS. You don't care who pays in?

Mr. AVERY. I care very much. I know that everytime I make a contribution I get less back.

Senator BAUCUS. Frankly, I am astounded you can't answer that question. But let me ask a new question: Does Uncle Sam pay into a barge employees' pension fund? Do you know the answer to that question?

Mr. AVERY. To the extent they are covered by social security, Uncle Sam pays into it.

Senator BAUCUS. But social security is paid for half by employers and half by employees. There's no general revenue that goes into social security. There's general revenue that goes into railroad retirement pension plans.

Mr. AVERY. It wasn't the purpose of the contribution of the Federal Government to put the railroad retirement fund on the same basis as social security when they combined it 3 or 4 years ago.

Senator BAUCUS. It's not combined. They are separate plans. They are not combined, but to go back to my question, if you don't know the answer you can't tell me, but does Uncle Sam contribute to the barge employee pension plan?

Mr. AVERY. Not that I know of.

Senator BAUCUS. But Uncle Sam does contribute $350 million to the railroad pension plan, is that correct?

Mr. AVERY. No, that's not correct. That's not the way I see it.

Senator BAUCUS. How much does Uncle Sam contribute?

Mr. AVERY. I don't know what the amount is but it's not a contribution to the pension plan.

Senator BAUCUS. What is it, then?

Mr. AVERY. It's because of some changes they made in the plan 2 or 3 years ago that Congress decided to put on an even basis and made a contribution to it. Am I right or wrong on that? That's my understanding of it, Senator.

Senator BAUCUS. I will tell you what my understanding is. If neither of us knows, I'll try to figure out what the facts are.

Mr. AVERY. I'll tell you one thing, I can get the facts for you.

Senator BAUCUS. If you can——

Mr. AVERY. I certainly will.

Senator BAUCUS. There's no Federal contribution to social security. My understanding is that there is a Federal contribution to the railroad retirement pension plan. And my understanding is $350 million annually. If I am incorrect in my understanding, I'd like to know that. Perhaps you could supply that for the record. Can any other witness answer that? Am I correct of incorrect?

A VOICE. That the Federal Government puts into the railroad retirement? Is that your question?

Senator BAUCUS. That's right.

A VOICE. I'm a railroader and I've been for 34 years. And the employer and the employee has paid solely for the expense of our railroad retirement. In 1975, Congress came in when they decided that we were cut back in railroad force for the contribution that we were making, that it had to be a higher rate, and so on like that. That's when they put us into social security.

Now, they transferred it over to the same funds. We went back from pretty near $100 a month to $53 a month paying into this for our retirement. Gradually now its come up as you increase social security, you increase our railroad retirement all the time. Now we are paying $1,800-some a year. And with this new thing that you supplied through Congress, it's going to increase $37 a month. Railroads are going to increase from about 7.5 to 9.75 percent. We pay 2 percent more on the men.

The word is Congress put the money into this fund as a retired person or anything else.

Senator BAUCUS. Will you state your name for the record?

A VOICE. I'm Sal Burr, B-u-r-r.

Senator BAUCUS. You are with the——

Mr. BURR. I'm legislative chairman for the Locomotive Engineers and I am a locomotive engineer for the Burlington Northern.

Senator ABDNOR. Thank you, very much.

Senator BAUCUS. Obviously, none of us are the definitive experts on this system, but let me just read from an April 1981 document prepared by the Office of Management and Budget. It's an April 18 document by this administration's Office of Management and Budget under a section called railroad retirement. There's a footnote that states as follows and I'll quote it directly—

> Federal taxpayers directly subsidize the rail industry pension plan by $350 million annually. This current taxpayer subsidy equals $700 per rail employee and the rail industry seeks to double this windfall subsidy.

Now, to me this is apparently a plan to double this subsidy and this is a document prepared by the Office of Management and Budget. There may be some overlap but at least through the document prepared by the Office of Management and Budget, there's a $350 million annual subsidy to the railroad industry. And my understanding is that the barge industry does not have that subsidy.

All I'm trying to establish is do you agree or is that not a subsidy to the railroad industry and to the barge industry and certainly the Army Corps of Engineers does help subsidize barge industry. There's no doubt about it, Uncle Sam dredges, builds locks and that is a kind of subsidy.

Well, I'm trying to find out what is the net subsidy to the barge industry and net subsidy to the rail industry. In fact, I'm trying to separate the myth from the facts around here. And I do think, based upon what I have heard thus far, and if somebody could dispute that there's also a subsidy to the railroad industry of about $350 million annually—now, there may be other subsidies. Mr. Rice points out the FRA budget and so I suppose that's kind of a subsidy, too.

There may also be the same kind of loans to the barge industry. I don't know if we have that information. We can determine that.

But the fact of the matter is the rail industry does get a kind of subsidy here, too. So if we are going to cut the barge subsidy, we should cut our rail subsidies as well.

Do you agree with that, Mr. Avery?

Mr. AVERY. One hundred percent.

Senator BAUCUS. So would you agree we should reduce the railroad retirement contribution to the railroad industry?

Mr. AVERY. If you make the barges self-supporting, we certainly would give up any subsidies in any form.

Senator BAUCUS. One quick question here, and I don't mean to be sensational, but can you tell me how much BN is paying for its radio ads you hear on the Montana radio stations in support of the BN unit train system? Do you know what that total bill is?

Mr. AVERY. I'm sorry, Senator, I don't.

Senator BAUCUS. Could you provide——

Mr. AVERY. I don't know anything about our advertising program.

Senator **Baucus**. Would you provide the exact dollar amount for the record, please?

Mr. **Avery**. I don't know if I will or not.

Senator **Baucus**. Why would you not?

Mr. **Avery**. Because it's not my department. I have nothing to do with our advertising program. And I think that it's unfair to ask me to provide some figures I have to go to the executive department and ask for.

In other words, what I'm saying is I can't come here and make a promise for the executive department of the Burlington Northern. But I think we would be able to do it. I don't think it's anything we would worry about.

Senator **Baucus**. I'm making that request. I would like to see Burlington Northern's exact dollar amount of the advertising campaign it's now conducting in favor of the unit trains.

Mr. **Avery**. Senator, I will take it back and I will get a response to you.

Senator **Baucus**. Do rail employers pay for that cost? Do any of those advertised dollars get thrown back into freight rates?

Mr. **Avery**. Well, advertising is a cost of doing business and all our business expenses are covered by the only means we have of raising money and that's through transportation of freight, so yes, if you advertise, you pay to advertise. It has to go into the charge that you apply for the commodity or service, no question of it.

Senator **Baucus**. Another question: What is the answer to Mr. Keith Kelly's point this morning that somebody who ships grain 700 miles further than a northeastern Montana farmer pays the same freight rate? What's the answer to that?

Mr. **Avery**. I had a little problem following Mr. Keith Kelly. That's not unusual but I think we were comparing some bushels and hundredweights, single cars and multiple-car rates.

Now the facts of the situation were these: That the single car rates from eastern Nebraska and Colorado are higher—are lower in some instances than a single-car rate from Montana. But with our 26- and 52-car rates, then we have a different situation. Our rates from Montana are as low or lower than the Colorado, Nebraska rates.

Now you may question again why aren't the Montana rates lower, and the answer to that is the rates for Nebraska and Colorado would be somewhat higher except for competition. And competition comes about from the MKT which is down in Washington borrowing money, making some very depressed rates to the Government to meet the subsidized transportation on the Missouri and Mississippi waterways.

The Missouri Pacific decided that they wanted a piece of that business and the Union Pacific, if they wanted to compete with the Missouri Pacific, they reduced their rates. And Burlington Northern, we also had to reduce our rates.

Senator **Baucus**. So competition does reduce freight rates?

Mr. **Avery**. Always on every commodity and every service.

Senator **Baucus**. Then why shouldn't, as a matter of public policy then, Congress and other agencies do what they can to promote competition and keep competitive systems available?

Mr. **Avery**. I have no objection.

Senator BAUCUS. In the same area?

Mr. AVERY. I have no objection to it if they are not using my money.

Senator BAUCUS. That's usually the case.

Mr. AVERY. I can't see why we should have the Treasury stimulating competition. That's a false sense of economics.

I have a little story on that, if I have time to tell you about Jed the farmer who works for the farmer and one day he decided he would borrow a ham without telling the farmer. Then he went down to the local grocery, sold the ham to him for $27. He pocketed $7, he took $20 and went over and got $80 worth of food stamps. With the food stamps, he bought $48 worth of groceries and a ham from the grocer and he paid $32 for it, so here we have, without investing one penny, Jed has got $7 in his pocket, $48 worth of groceries, the farmer got his ham back and the grocer made $7.

Now if that is the type of economics that we derive stimulating the economy, well, then, go ahead. But I don't think we can go very far that way.

Senator BAUCUS. The problem is, as you know, that sometimes when there is competition, and this is true in history and true in logic, that the sole remaining employer, whether it's the transportation system, whatever it might be, is tempted at the very least to charge a price which more than covers the cost. And it just is plain monopolistic pricing. So sometimes you need a subsidy or some regulation or something to prevent monopolistic pricing.

Mr. AVERY. I don't think that follows, Senator, because, as I said in my response to Senator Abdnor, that I think there still would be competition with trucks and barges even if we would have a full cost of recovery.

Senator BAUCUS. Well, that is not responsive to my question.

All I'm saying is if there is one company, one system available, unless there is some regulation of that industy, that industry will probably charge monopolistic prices.

Mr. AVERY. Without regulation, I think you could bet they would. But we do have regulation.

Senator BAUCUS. Sometimes.

Mr. AVERY. One hundred percent.

Senator ABDNOR. Let me ask all three of you other gentlemen, how do you propose we are going to build water projects now, including locks and dams? Do you have any idea? Let me hear from you because you are against any kind of user fees, obviously, so what do you propose? Do you want locks or do you want the Government to keep building them all for you, because I want to tell you, the mood of Congress isn't that way anymore. I'm afraid on a lot of these things, they are starting to look at it very carefully because of the tight economic picture we are in.

My intention was to try to be fair and make sure everybody pays accordingly, but I think I sense here that we seem to have a mood we shouldn't charge any kind of fee, so I'd like to hear you respond how do we build up some water project for $50 million? Things are not getting any brighter for funds, at least in the immediate future.

Do you have any suggestions on how we can improve our waterways and keep up the dredging and the ports? Give me something in place of it, so all three of you, I'd like your comments.

Mr. LINDSTROM. The Columbia-Snake system has significant number of improvements, somewhere near $200 million worth that I recall, maybe even more, that speak to navigational loan. Some say as high as $600 million. The improvements in many cases were made in conjunction with multiple-use facilities.

Senator ABDNOR. That's right.

Mr. LINDSTROM. And the improvements were made not to install navigation capabilities but to sustain existing navigation capabilities before the project was built, so I think we have to separate certain things out there.

Senator ABDNOR. Exactly what I want to do, too.

Mr. LINDSTROM. To speak now to the construction of new waterway facilities, for example a new lock at Bonneville Dam, which is desperately needed by ourselves——

Senator ABDNOR. Let me interrupt you. I disagree with you, Mr. Lindstrom, when you said you don't need anything now. Mr. Boire said if we started today, we might get it in time.

Mr. LINDSTROM. I do say we do need it now desperately. It's a No. 1 priority in the public works. Over the years, the Pacific Northwest region has been a significant beneficiary of the process that, until Congress quit passing on this bill, worked very well for a number of years starting with the WPA projects in the 1930's. We've, by the way, seen a Federal development to public works in the Pacific Northwest region of $6 billion since the Reclamation Act was passed in 1902. The total returns to the Federal Treasury for that $6 billion investment has been in excess of $21 billion from the collection of revenues from irrigation districts, from the sale of hydroelectricity, from the imposition and collection of other fees and charges. That's a 3½-to-1 deposit return, so that's not too bad a response by private enterprise and non-Federal entities.

Senator ABDNOR. I'd like to have the figures if I try to sell the administration and Members of Congress on additional water projects.

Mr. LINDSTROM. I would also point out that we are a century behind the majority of the rest of the country with the exception of perhaps Alaska, apart from the desert southwest, in benefiting from this Federal attention. Our waterway system is now a juvenile system. It is just now starting to mature. And the tremendous amounts of investment are starting to be compensated for by tremendously increasing amounts of traffic. But how do we pay for these things?

There are a number of ways. I feel the beneficiaries should pay but they are not just the barge line or wheat grower associations. The beneficiaries are anybody who produces or consumes produce or the rest of the products and byproducts, manufactured products which are imported or exported to this country.

Senator ABDNOR. Let me interrupt here. A minute ago one of you gentlemen made a statement that this thing ought to be a system of foreign exports. Is that your feeling?

Mr. LINDSTROM. Senator Hatfield has introduced legislation that would increase inboard and outboard commerce period. Our organization has not had a chance to look at that and, therefore, we haven't commented. The real value of Senator Hatfield's legislation is that it speaks to the waterway system as in separately shallow and deep draft. And we feel that's an extremely beneficial point, one that is not covered by the administration.

Senator ABDNOR. We do have measures pending in Congress and from the administration that provide for the entire cost of deepwater ports, be paid for by the port itself or whoever puts it in. We found some cities who are willing to do that.

Mr. LINDSTROM. Yes, sir.

Senator ABDNOR. And, of course, those are going to be paid for by the people using the ports. But that doesn't mean everyone who wants a port can afford it, so that's why we are holding hearings. I guess all I am talking about is this whole thing is interrelated, whether you are talking about rail and truck and water or inland water fees versus port fees. And so that's exactly why we are holding these hearings.

Mr. LINDSTROM. I would offer the microphone to any other if they want to respond to your earlier questions.

Senator ABDNOR. In the past, the Government paid for water projects and I think it's safe to say they are not going to do it anymore. I think we are all agreeing that even if we get away from inland water fees or any other type of fees and talk about water projects, that is very real. The States themselves are going to have to put up money for different kinds of projects. And how much, I don't know, and how we are going to assess it, on per capita income in the State is how much they pay for or whether they are going to pay a flat 25 percent as has been suggested.

I think it's a whole new ballgame. And any area you go into, we're trying to figure out where we are going and what we can afford and keep everyone viable. We need every form of transportation, we can get.

Mr. LINDSTROM. We don't disagree. Change may well be necessary.

Senator ABDNOR. Like Mr. Hatfield's bill you are talking about, some people contend that's a direct violation of trade agreements we have entered into with other countries and that is not an easy thing to ignore.

Mr. LINDSTROM. I have some real quarrel about the legislation——

Senator ABDNOR. We have free countries versus other countries but once we do it, we are stuck until we change it.

Mr. LINDSTROM. There is a specific commerce clause in the Constitution and I contend they are equally as strong as the trade agreements instituted under the law of that Constitution.

Senator ABDNOR. I couldn't agree more.

Mr. LINDSTROM. I do feel we have to continue to look at this on the broad perspective. And if we put a single hair from a person's head at a cocktail party under a miscroscope, we will gain a good deal of information about that cocktail party, even though we may know even more about the single hair of that person's head.

We can prove anything inefficient; we can prove anything efficient if we put it in the right light, so let's stay back and take a broad view.

Now, many of these ports that say they can pack the freight of imports, of deepening even to 55 feet or more, are anticipating tremendous energy movement of an export nature. And I don't quarrel with their taking advantage of that kind of opportunity but that could prove to be disruptive to other baseline economic activities we conduct, including the export of agricultural products. And again, I don't feel that we can be stampeded by these projections of things paying their own way when we have residual and indirect expenses which will be incurred.

Senator ABDNOR. Would you comment about how future projects, projects should be——

Mr. SCHMADERA. Mr. Chairman, being a newcomer to this particular industry and the job I presently handle, I'm kind of at a disadvantage and I hope you will bear with me. I'm really not prepared to speak on it unless you so insist and I could put out what I have experienced in the past six weeks of my internship in this particular thing. If you would like me to make a comment——

Senator ABDNOR. Well, if you care to comment later after visiting with your group——

Mr. SCHMADERA. The only thing I can cite right off the bat that would be very concrete would be to refer to the written report. Mr. Moore makes certain recommendations in there that user fees should be phased in over a long term and there should probably be some sort of equitable user fees. And that's about the extent I can speak to it today as far as giving you percentages and dollar amounts. We want it to be equitable. That is what we are all after. And, you know, everyone looks at it differently and I could ask Mike over there if he doesn't like subsidies to the Federal highway system. Thank you, Mr. Chairman.

Mr. RICE. Ralph has volunteered to answer that question for me. I think I possibly did not include that in my statement. I should have. The motor carrier industry is not in any way opposed to user fees. It's been a very successful thing for many, many years. The most grand example, I suppose, is the Federal Interstate Highway System.

Senator ABDNOR. Well, let me tell you we're having some real problems with the highway trust fund. We need more gas tax revenues now because we are trying to keep up with the repairs of the Interstate System. The fund has a little excess money in it now but it is not taking in as much as it is appropriating out.

Mr. RICE. I think there's no effort to review the need in alternatives. And I guess my favorite little speech that goes to waterway transportation is to say just the same as the highways, we desperately need, before we built these and before we assessed the charges, to do some integrated planning.

I believe the Port of Lewiston was built with no consideration to access, no significant development of the landlocked States that were involved. That sort of thing needs to be done in advance. And if the project is properly planned, then I don't think there's a problem with user fees if you can decide how to do it.

Senator ABDNOR. That's right and I agree. You gentlemen agree phasing in is a better way to go about it. Didn't you suggest the phasein in the Port of Lewiston?

Mr. SCHMADERA. Phase them in over a period of 1 year if they are reasonable and come up with an equitable rate if it has to be.

Senator BAUCUS. A couple of quick questions. There are a lot of witnesses to talk to later this afternoon.

I wondered, Mr. Avery, Mr. Rice, and I guess, Mr. Lindstrom, generally pointed out that even if, say, 10 percent of Montana grain to the coast goes to the truck-barge system, that amounts as kind of a ceiling and helps keep freight rates down.

Would you agree with that statement or not?

Mr. AVERY. I don't think I would agree with 10 percent.

Senator BAUCUS. Whatever the percentage is that it amounts to a ceiling and helps keep freight rates down?

Mr. AVERY. It most certainly does.

Senator BAUCUS. So why isn't that a good reason to make sure we keep a significant percentage of barge-truck transportation so we get good competition and keep all our rates down?

Mr. AVERY. Because we are not competing with costs. We are competing with charges and therein lies the difference. I don't see where the taxpayer should support or provide competition for a private industry.

Senator BAUCUS. This gets a little difficult because BN is in a different position than other railroads in the country. As you know, Burlington Northern is the largest land-grant railroad that has received more acres of land grant than any other railroad. That's correct, isn't it?

Mr. AVERY. If you combine the Northern Pacific and C.B. & O., then you would be correct, Senator.

Senator BAUCUS. It's about 40 million acres of land?

Mr. AVERY. I don't have the number but——

Senator BAUCUS. It's larger——

Mr. AVERY [continuing.] I accept that.

Senator BAUCUS. But larger than any other present railroad——

Mr. AVERY. That's correct.

Senator BAUCUS [continuing.] In the country. And of the 40-million acres BN owns, about 2.4 million acres outright—2.4 million outright and 6 million acres mineral rights? That's about right, isn't it?

Mr. AVERY. I don't know but I know it's considerable.

Senator BAUCUS. Burlington Northern has about 14 billion tons of strippable low sulphur coal and that's reserves, and the BN has 50 billion tons of unproven coal reserves which is more than any other coal company in the United States? Does that jibe with your understanding?

Mr. AVERY. The 14 billion I'm familiar with that number. The 50 billion I am not familiar with it but I would accept it. It's probably right.

Senator BAUCUS. The point is BN, as compared to other railroads, does have significantly more railroad holdings which combined with the timber holdings put the BN in a position to earn significant revenue, which, in the past, has helped pay for some of the rail operations?

Mr. AVERY. That is correct.

Senator BAUCUS. So it's even more complex because BN is not like some other railroads and the BN here is competing with the truck-barge system. And we're trying to figure out a way that is fair to make sure no industry gets excessive subsidies—probably the goal is no subsidies—but at least certainly not excessive subsidies and also to maintain competition where there is no competition, certainly vigorous regulatory system to make sure the remaining industry does not charge monopolistic prices.

And I particularly am concerned about the last point because it's been my understanding that the BN has charged higher prices in Montana in certain parts of the State because there is no competition. Is that a fair statement or not a fair statement?

Mr. **Avery**. It's a fair statement. I think you will always find higher prices or rates for services and goods when the competition is lowest. That's correct. Our rates in western North Dakota where we have less competition or at least not as intense competition as we do, say, in Illinois, along the Illinois waterway or in Iowa along the Mississippi waterway, and we have the same situation particularly in eastern Montana. We have considerable competition in central and western Montana from general subsidized competition.

Senator **Baucus**. Thank you all very much.

Mr. **Avery**. I would like to add, if I may, Mr. Chairman, in connection there has been considerable discussion today and in Senator Baucus' line of questioning in connection with the land grants. And I have to assume it's taken into line that these land grants are subsidies. We have prepared a paper which is a history of both Congress and the courts' action on land grants and the decisions we've made. And I would like to submit this if I may.

Senator **Baucus**. I would like to see that.

Mr. **Avery**. It's an excellent paper, unbiased as it was prepared by us.

Senator **Abdnor**. I just want to say as we conclude this panel, that I think it's the full intent of the committee and everyone involved with it to try to end up with a good transportation system for this country, one fair and equitable to all the forms of transportation.

You happen to be looking at a Senator that comes from a State where we, as I said this morning, gave up 500,000 acres toward a fine water system to Sioux City, Iowa, who never gave up a darn thing. In the meantime, we have lost all our railroads and we certainly hope you come to South Dakota. We welcome you with open arms.

Thank you all. We appreciate your being here today.

Mr. **Lindstrom**. Thank you very much, Mr. Chairman.

Senator **Abdnor**. Next panel. You go right ahead, Mr. Christiansen.

STATEMENT OF JIM CHRISTIANSEN, MONTANA WHEAT RESEARCH AND MARKETING COMMISSION

Mr. **Christiansen**. My name is Jim Christiansen. I'm an information officer of the Montana Wheat Research and Marketing Commission at its offices here in Great Falls. I would like to address some of the things that have been said here today and maybe be a little more specific on some issues that have been discussed in brief today.

First of all, if Mr. Avery has problems understanding Keith Kelly, I would refer him to the written testimony in which he has detailed the freight rate comparisons with other States and Montana to the Port of Portland. And it reflects Burlington Northern rates all the way down. And if there was the implication from his testimony that somehow the unit train rate differential equals this out in some way, I would remind the committee that there is the same difference between single-car rates and 52-car rates or 52-car rates as they are in the Midwest at 15 cents a bushel between—let's see—single-car rates and multiply the maximum 52- or 54-car rates. That does not change from State to State. And, therefore, if you look only at the single-car rates you will get the relative difference between the freight rates in all the States.

Senator BAUCUS. It's the same with multicar rates?

Mr. CHRISTIANSEN. Right. You take the single-car rate, subtract 15 cents a bushel, you will get the maximum unit train rate all the way down on any rate anywhere you go.

If you look at car mile earnings which is in the far righthand corner, then you see what the railroad realizes in terms of earnings for each bushel of wheat per mile. If that were to be translated, for example, overland Kansas to Montana, if their rate, which is 0.062 miles per bushel and if it was to be applied to Montana, the following paragraph indicates that Plentywood, Mont., to have a 49 cents reduction in their freight rate—and on down the list—Great Falls 34 cents per bushel reduction in their rate. And Mr. Avery was entirely correct. The reason for the difference and the higher rates in Montana, of course, is the lack of competition in Montana. He doesn't argue with that. I don't think we're going to argue with that at all.

The only competition we have possible, of course, is the truck-barge combination. There is one-way trucking or backhaul trucking to California but for the most part, the competitive influences of the truck-barge system have held down freight rates in Montana.

A week ago I went to a company. I wanted to send a truckload of grain to Portland via the truck-barge system and asked what would the price be—51 cents for the truck rate to Lewiston, Idaho, 6 cents for the handling charge at the facility of Lewiston, and 15 cents per bushel barge from there on into Portland, or a total of 72 cents. That's from Great Falls. Presently in Great Falls, the 52-car rate is 71 cents a bushel and the single-car rate is 74 cents a bushel so it has to be bracketed in that 72 cents truck rate. And they have, with that kind of rate, eliminated three-quarters of the one-way truckers since December 1. No more than one-quarter of the one-way truckers still remain in this time period since unit train have come in, so there is a direct correlation between the rates that are charged in Montana and what happens to the rates on the river. If it's a 15-cents-per-bushel charge from Lewiston, Idaho to Portland and user fees then were handed back, and certainly if user fees are put on barge companies, they are going to hand that back to the facility on the river and that's going to be in turn given back then to the manufacturing in the country and then the farmer will end up being stuck with it.

Now, he's right. We pay all prices in Montana based on rail delivery to Portland. But if those rates go up by 15 cents per bushel on the barge, then the rail rate can also go up because of the competitive influence. And 1 cent per bushel is $1.25 million taken from the farmer directly.

Now, how many times that is multiplied in the sequence is debatable. Some say seven times. The farm dollar turns around in a community seven times. That's fine. That's $7-million that comes out of the business, large and small, across the State. And multiply that again, if you'd like, to all the businesses that generates outside of Montana between here and the export facility and you get a substantial amount of money.

Senator ABDNOR. Does the Burlington Northern make an excessive profit up here?

Mr. CHRISTIANSEN. Absolutely. There's no question. And I think even the railroad admits they are making excessive profits in Montana because their argument has been to me in the past is they have to and I use the word extort.

Senator ABDNOR. Use any word you want.

Mr. CHRISTIANSEN. They would like to extort excessively high rates to pay for costs in other States that they are not able to realize because of competition. That is their argument.

My argument is, we are subsidizing other States with high rates. And I don't see there's any way with the Staggers legislation of 160 percent of variable cost—to raise it to 185 percent of variable cost? The lowest variable cost in Montana approximately right now is 220 percent, although it can go as high as 390 percent of variable cost.

Montanans are not really big on faith in legislation. The Staggers Deregulation Act was supposed to guarantee to capture shipper regulation. I maintain the greatest subsidy the railroad has is not the railroad retirement fund or land grant or anything else. It has been the action or lack of action on the part of the ICC. They have been the ones who have subsidized the railroads and pretty much given them what they have wanted in the past.

The railroad has been in a position to really negotiate a tough labor package or really to do anything as long as the ICC was there to bail them out when trouble came. I'm getting a little bit off the track.

Let's go back to the ports. If we are captive to the railroad, the Burlington Northern Railroad in Montana, we are just as captive to the Port of Portland; 34 percent of the exports off the west coast went out of Portland. That's predicted to increase over 50 percent of the entire wheat export market coming out of the west coast in the next 5 to perhaps 8 years. If that is going to happen, we are going to have two remarkable things happen in the shallow-water port if user fees are given to the port. We've got two choices: Either that's going to be handed on to the exporter in which ways we will lose our balance of the trade, we will lose it to the other—there are a dozen deepwater ports in this Nation. And we will get Portland's share of the market or we're going to lose to a market in Canada. In either case——

Senator ABDNOR. Do wheat shippers need a deepwater port?

Mr. CHRISTIANSEN. Well now, and I'm not an expert in this field, but the ships that come in to Portland are not fully loaded. They have to be topped off at a deepwater facility after they get out of port. I submit that, in fact, either we pass this on to the exporter and lose on exports and lose to the balance of trade and affect the entire economy that was $45 billion in the battle against, you know, the balance of trade were——

Senator ABDNOR. Let me point out one thing so you understand. There isn't a city up and down the coast that doesn't want these. And this is the problem. An there's no way in the world we can put them in every place. Some kind of a formula has to be derived. We have been told that some cities would go ahead and do it on their own. That's tough competition, I know.

And there are 435 members in the House sending dollars that everybody is after. I just want you to know what we are up against.

Mr. CHRISTIANSEN. I understand priorities. My argument is that the priority has to be a deep-water port in the Pacific Northwest if that's where the future market is. The deep-water port has to be there.

Now, if the cost isn't passed on to the exporters, back to the user, and who is the last person who cannot pass on the cost? That comes back to the farmer again. And if it's going to have to come out of his pocket, the farmer is even less profitable in the Pacific Northwest and he can't send our wheat to California, we will have to send it to the gulf. But the BN does run down there. If they can charge us the price they are charging now with the distances we have here, they could really sock us sending it to the gulf.

Senator ABDNOR. Mr. Templeton?

STATEMENT OF TOM TEMPLETON, MONTANA GRAIN GROWERS ASSOCIATION

Mr. TEMPLETON. Thank you, Mr. Chairman. I'm testifying on behalf of our transportation committee chairman who is Viggo Andersen, who is now in the midst of harvesting his wheat. And, of course, this is his payday and we can certainly excuse him for that.

One thing I would like to point out, the rate change we've had in our railroad rate in the past 2 or 3 years has made Montana a residual supplier of grain for export and this has been reflected in our percentage share of the export market, which has gone down according to the reports of the U.S. Wheat Office in Portland, so we have lost our percentage share of the market because of the increase and discriminatory rail rates that we now have to pay.

Another point we should make, before multiple car rates went into effect, in using the rail formula figures, in other words, using the railroad's own figures, BN's own figures, their costs, their return over cost was an average from 205 to 273 percent. At the present time, 160 percent is the breakpoint as far as the ICC is concerned.

And our studies in the class action suit we have against BN, which is by 44 farm groups including our group, the National Farmers Organization, the Farm Bureau and WIFE group, our studies show their figures on various return as high as 399 percent. And so since the Staggers Rail Act went into effect, we feel this action has virtually made it impossible for us to control, have any recourse to prevent increase in rates that way it's set up, anyway, effectively challenge increase in rates, anyway.

And we talk about the truck-barge competiton. Actually that is not competition for the BN since they can still drive truckers out of the business, which they have done, and still make over 200 percent over variable cost.

And we should point out that I think it's been mentioned before that agriculture is the biggest share of the State's economy, around 40 percent, and grain is about half of that. And so we are talking about—for a total of Montana affecting everything as far as the grain rates and our economy is going to go up or down according to rates. And that means the BN rates actually, so we can only conclude from the absence of effective competition, which we all agree is the best regulator, we have to have some effective-type regulation. We do not feel we have this in the Staggers Rail Act.

And the philosophy the charge will be what the market can bear may be good business but only in a short run. And the farmer, of course, sees this philosophy as grossly unfair. And I think it goes against our Christian ethics as opposed to business ethics. We are talking about the "Golden Rule" as Ralph mentioned earlier, so if BN persists with their philosophy, it can suffer its consequences. I thank you.

Senator ABDNOR. Thank you. We appreciate your statement, Mr. Templeton.

Ms. Scott?

STATEMENT OF ANN SCOTT, MONTANA FARMERS UNION

Ms. SCOTT. Mr. Chairman, Senator Baucus, my name is Ann Scott. I'm an economist with the Montana Farmers Union and I will be real brief today. But I just can't help but comment on some of the concerns that have been brought up that deal directly with economics.

One of the things that we see as being very important in the current debate over waterway user fees is not so much this specific incident but rather the whole trend in Government today toward turning Government, many Government functions, back to the marketplace. And we also feel there are many different examples of Government intervention and action that should be left in the marketplace.

However, in any type of economic philosophy, there are times where Government is considered to be necessary. And I find it difficult to believe that very many economists would consider it a warped sense of economics, as Mr. Avery put it, to consider that we might want to stimulate competition.

Basically what we are concerned with is providing a market that is similar to the free market system. And when you don't have a free market system, then you try to put either controls or stimulus into that system to make it as near to the free market system as you can. And this is where we come down to subsidies for the waterway users.

Basically, we are faced with a monopoly in Montana. And I thought it was interesting that Mr. Avery stated that if the water fees were subsidized, that then you would basically have water-imposed rates. And they would have to collect higher rates on other portions of the system to make up for this subsidy. Well, that's exactly what's happening in Montana right now. We are bearing the burden of other States where they have competition.

And for this reason, we feel that it is important that we do have some type of subsidy that does allow us to have more competiton in the State.

The other thing I would like to comment on, because it's been brought up a number of times, is the subsidy, possible subsidy of land grants. Mr. Avery said that they have paid the land grants back. Once again, I would refer to his statement where he said that when they have to meet lower rates, then they were charging them over on the system. This is exactly what happened when they supposedly paid back the Government for their land grants.

What they actually did when they were giving lower rates to the Government during the war period, what they were doing was charging back the rest of the system that difference, so basically it's true the Government was paid back but the public paid it back rather than the railroads. The public paid it back by carrying higher rates during that time while the Government was getting lower rates. So this is, I think, another example of a subsidy situation that has occurred.

The problem is the subsidy to the railroad has been more in the form of a direct subsidy rather than an indirect subsidy. When you directly subsidize someone and just give them money and hope that that will cause them to give better service and lower rates, it just doesn't work. And we've seen it happen in the railroads.

However, on the other hand, when you have a subsidy that goes in as a more indirect subsidy, such as improving a waterway or improving a port system, it can't help but incur or cause a direct rate decrease or direct service increase to those people, the public that are inevitably the beneficiaries of that system. So I think that what we have to remember is that there are valid uses of Government subsidies and they are there to stimulate a system that is more nearly like the free market system.

And if we keep that in mind, it will guide us in our use of subsidies. Thank you.

Senator **Abdnor**. Thank you. We appreciate that statement.

Mr. Purdy.

STATEMENT OF ROBERT PURDY, NATIONAL FARMERS ORGANIZATION

Mr. **Purdy**. I am Robert Purdy and I'm the eastern district president of the National Farmers Organization but I represent the Northwest region. This has the prime responsibility for our organization of pricing and transporting grain products to the several States of the Northwest region.

The testimony today has shown there are many and varied questions and problems being raised. I would like to concentrate on one of the many adverse effects of the increase of large transportation charges. It revolves around our organization's particular philosophy that the production, which includes the cost of production, which includes all the cost of transportation until the product is in the hands of the buyer, should be passed ultimately to the buyer and not absorbed by the marginally and inadequately reimbursed farmer.

So, Mr. Chairman and Senator Baucus, thank you for the opportunity to submit testimony regarding transportation in general and barge user rates in particular.

As you know, we have two major options for moving the bulk of Montana grain by rail to the north coast and truck to the Snake River and the Columbia River—excuse me, I'm reading that wrong. As you know, we have two major options for moving the bulk of Montana grain by rail to the north coast and truck to the Snake River and Columbia River—the others we have by rail or by truck and barge to the Snake River and Columbia River—this is the testimony of our regional man and I'm reading it as you understand—relatively small amounts of grain go by rail to the East or rail and truck to California, Mexico, and other southern connections. Some, even smaller quantities, are delivered to Canada, mostly specialty-type crops.

Early philosophers often referred to what they called social contract and its ramifications. Our assumed social contract in this matter deals with the initial construction and subsequent use of the Snake and Columbia Rivers lock and dam system. Obviously, no group of farmers and related business river users had the capital nor organization to build these engineering wonders in the first place. A social responsibility, in this case a financial one, was assumed by various levels of government for the public, meaning that the greatest good was to be paid for by the greatest number, hence the general taxpayers. The same sort of reasoning has taxpayers in general pay for airports, even though a much smaller number of people actually fly by private or commercial aircraft.

Now, without the truck-barge combination, Montana farmers can only turn to the Burlington Northern, a company which holds a monopolistic position for all service in this State. If river rates go up in response to the dictates of user fee philosophy, then rail rates will also go up.

It goes without saying that an increase in barge rates will obviously affect Oregon and Washington farmers since the majority of their grain moves on the river. In fact, any increase in barge rates will reverberate throughout the entire Northwest.

Therefore, the NTO takes the following position: farm product prices must, at sometime very soon, reflect a cost of production plus a reasonable profit, and this on a stable basis. Thus, terminal market prices must be negotiated to high enough levels to account for all costs from the farms' investments to all handling and shipping in between the grower and the terminal market, in this case Portland FOB prices. NFO members know this can be accomplished by collective bargaining. Consequently, the consumers, domestic and foreign, will pay the bill. We would just as soon have the current barge rate structure remain intact so we don't have to bargain additional direct transportation costs into any price formula. Thank you.

Senator **Abdnor**. Our last witness is Mr. Henry.

STATEMENT OF ROBERT L. HENRY, IDAHO WHEAT COMMISSION AND IDAHO STATE WHEAT GROWERS ASSOCIATION

Mr. **Henry**. Yes, I'm Bob Henry. I'm a transportation consultant for the wheat interest in the State of Idaho, the Wheat Commission and the wheat growers. And I speak for them. I'm the present representation of the views of the South Idaho Feed and Grain Dealers as well. I have a prepared statement before you. I do intend to summarize.

I'd like to speak to several points that were brought up during the course of the testimony today. One was to your question, Senator Abdnor, about preference of the grain vessels requiring more than 45 feet of water at Portland. I was at one time traffic manager of the Port of Portland many years back. And I have been following this, I guess, somewhere between 70 or 80 percent of the vessels have no problems with the draft under ordinary water conditions. The larger vessels, the ones that are most efficient and provide the cheapest carrying charge do haul from Portland to Vancouver. The 40-foot limitation vessels receive whatever portion of their cargo they can and shift into the Puget Sound ports and go to Seattle and then continue loading there.

Senator **Abdnor**. Is that a satisfactory arrangement?

Mr. **Henry**. It's an extra cost situation, although basically it seems to fit well into elevator size and grain availability and those sizes at this time. But it is an extra cost situation and it is rendering the Port of Portland not competitive in certain classes of transportation.

Senator **Abdnor**. Let me ask you this. Working for the wheat interest, if they put a deepwater port in and had to pay for it, and we made all ships using the port pay, that would be unfair to the wheat farmers who don't need it, that would be unfair, wouldn't it? Didn't you say about 70 percent of them didn't need the deep water?

Mr. **Henry**. I did, Senator. I don't know as I did remark, though, the most efficient or the lowest cost transportation is provided by the large grain vessels, so if we trace this thing back far enough, our transportation costs are going to arrive at the grocer subsequent so even though the smaller class vessels, you're talking about that don't need the deeper channel, would have to contribute to the cost of deepening. I'm not sure it will be unfair completely because it will be of some benefit that did arrive back at the grower's pocket from having the deeper channel. I see your point and I can't answer it.

Now, even though I am representing south Idaho interests and we are talking about the Columbia-Snake system which is low-draft, I am limiting my remarks to shallow-drafts because I am not authorized to speak to the deep-drafting. We can't be parochial.

There are several—well, two of my friends, Ralph and Steve, both mentioned arguments attaching to the price of wheat. I'd like to add a third situation that wasn't covered and does exist. At the present time the barge rate for handling grain from the Port of Lewiston and Portland is published in a tariff. It is $5.17 a ton—Lewiston to Portland is $17.17, I think, and Pasco to Portland $333.

We have dam pools on the river. We have wheat prices quoted just as you do at Portland. You have a Portland price. You have a Pasco price. We have a Lewiston price. And it is possible and it is done frequently in some of the grain transactions for people to deliver grain to the port on the basis of a pool price, so that they do reflect in the return to the grower the actual transportation and handling cost built on a truck-barge delivery.

This prospect of user fees or water fees as reducing the Federal budget is something that didn't originate with this administration or this Congress. We believe that we have to make the move in that direction and to that extent we are supportive of this move. We think that waterway user fees can be a part of this. We see some dangers in the approach taken in S. 810. In review of the bill, we agree there is an antiwaterway bias and animosity against waterways reflected in S. 810 provisions. Pervading the bill is the sentiment, of course, that modallic freight rate versus water would result.

There's been a lot of talk about the fact that there is a direct subsidy, a cross-subsidy and a hidden subsidy which does exist for the railroad industry. We are not antirailroad in any form, but there are those who do believe that if you are going to make the move of inserting a user fee on the waterways, and if it's being done in the modal equity, the railroad subsidies should disappear at the same time.

And just in passing in your questions concerning the Railroad Retirement Act, Senator Baucus, in the deliberations and discussions in Congress in 1974-75 when that was enacted, several Senators clearly made the record show that by analogy this contribution was to be seen as a Federal contribution to a private retirement fund. It was picking up the railroad's share, not the employee's share, of the cost of the railroad retirement benefit. I speak—I mention that I do remember the quote that was in a study by Jesse Friedman & Sons or Associates performed for the northern waterways operators.

You have already covered section 205. I'd like to speak specifically to certain portions or parts of or approaches to S. 810, specifically congestion fees. One of the types of fees that were specifically mentioned and would be authorized if that bill were enacted. I don't think of anything good to say about congestion fees. I think they would be clearly unequitable, unreasonable, and I don't see how they could be helpful. And we're against them.

As to the fees themselves and the approach in S. 830, giving the Secretary of the Army tremendous delegation of authority to set budgets and to establish fees and levies, I can't see how Congress can delegate that much of its authority in that manner. And we would suggest, that as a very minimum, that the proposed budgets of the Secretary of the Army, the proposed fee structures of the Secretary of the Army be, as a minimum, cleared by at least a joint committee of the Senate and House before they be enacted and approved there.

And again, addressing fees, the approach taken in S. 810, there is a combined variety of fees enabled and, of course, if you are trying to establish an equitable fee arrangement, user fee arrangements, it would do many of the good things people have suggested, no cross-subsidy, but it would have to be said so that the party getting the most benefit from the waterway paid the most. We feel that a fee, if and when it is established, based on a ton mile, on a reasonable waterway segment such as something from the Port of Lewiston of land slack water to the end of shallow-draft slack water navigation at Bonneville would be a reasonable segment.

If it was done on a ton mile basis, the charge for a ton of grain loaded at Lewiston moved to Portland would be about 4 times as much in the user fee as it would be out of one of the lower dam pools. But it would be at a level which by the best figures we have, if the recovery of O. & M. costs were structured carefully and correctly, that it should not destroy the benefits and advantages of the waterway.

Now, there are a lot of qualifiers in that. We could take in contrast the problems with a lockage fee or a licensing fee or a segment fee such as Ken Boire kind of eluded might be under consideration. And if we look at the river, the Bonneville Dam, the Dalles Dam, the John Day Dam, and the McNary Dam on the Columbia River segment of the shallow-draft system and then we move upriver through Ice Harbor, Lower Monumental, the Goose, and Lower Granite. We'd have a possibility of nine segment fees. And if they were split equally, why the rate or the charge on the furthest upriver point would be nine times as high as it would be at the lowest downriver point. It would be eight times as high for Montana wheat or south Idaho wheat or north Idaho or eastern Washington wheat that went out at that pool.

The administrative cost of assessing a fee on such a basis is terrible. The problem of measuring to make sure it's equitable is terrible and the ultimate long-range effect of such a segmented fee could be very bad because if we had a fee which we say is nine times as high at Lewiston as it was at Bonneville and this fee were high enough to deter movement from the Montana, north Idaho, eastern Washington region through that pool, and that movement deteriorated, then the next pool downstream would not have a benefit of the usage fee that originated upstream. And it would have to pick up that cost.

If the cost became so high that this pool could not originate traffic, then it would come down like a bunch of dominos. So we urge that a ton-mile approach—it meets all of the tests—it's much superior and we'd like to see such a fee authorized except possibly a licensing for the purpose of vessel identification and a fee which was to be assessed for the recovery of capital improvements and rehabilitation costs. And it's possible the segmented fee may be appropriate.

Senator ABDNOR. I hate to rush you, but we are over 10 minutes already and we've got to move along.

Mr. HENRY. It's a ton-mile thing. Thank you.

Senator ABDNOR. Thank you, very much. While we're on that, have you ever been on a toll highway where you pay by the mile? You wouldn't believe in that in this case if you use nine of the six locks instead of one? You think they should pay the same fee going up that river? Is that what you meant?

Mr. HENRY. No, Senator. If it were a ton-mile basis, you, for example, if you are transiting 400 miles of waterway, you are carrying 400 ton-miles. If it's only transiting 50 miles, it's 50 ton-miles. They would pay a proportionate amount. I think their pay would be proportionate to the use made of the waterway.

Senator ABDNOR. I see. You go by miles instead of number of locks?

Mr. HENRY. Very definitely.

Senator ABDNOR. I think that concept of the Government recovering many of the costs is certainly here today. I realize that subsidies have a place but in the event Congress is not inclined to go along with subsidies in the degree they were, is there any way we can make it more competitive? The concern is there's going to be ripoffs if we use the users fee on water and not on rail. What other approach could we use? Do any of you people have any thoughts on that?

How about Ms. Scott? I think it's a fair statement to say that there's going to be some user fees assessed in this business. And I guess my concern, as I have said several times today, was to make sure it's fair and equitable.

Apparently you feel any kind of a fee that we put on will turn into a windfall for the railroads? Isn't that what you are saying?

Ms. SCOTT. Well, I think in the first place if you can't afford to subsidize, then the alternative is regulation. And if we can't stimulate enough competition so that we have fair rates in Montana, then our only solution is to have regulation and really fair and strong regulation.

Senator ABDNOR. I guess my voting record shows I have some strong concerns about deregulation in some of these areas. The mood of Congress has been going that way. It's hard to say what's going to happen.

What do you think, Mr. Christiansen? I know you feel strongly about this issue. I think you can also see where you are here in Montana that although we like it or not, there's probably going to be some kind of user fee. Do you have any thoughts on that?

Mr. CHRISTIANSEN. I have a rather simplistic approach to all of these things. First, let's start a little bit from the other end of it. On port fees, I think exports are so important to the overall economy of the country that port facilities should be borne by the citizenry of the country at large. And it is unfair for the segment of industry to bear the entire cost of something that—agriculture exports contribute $40 billion to the balance of payments last year. I think that that is only fair it be spread among everyone who benefits. And that is the citizenry of the Nation.

And as far as the user fees on the river, I understand the rationale. And I can see which way the wind is blowing on the subject. How you are going to stop that from simply being passed back to a certain group of individuals baffles me. It also baffles me how an administration who got to Washington, D.C., on the premise of getting government off the back of the individuals can justify dumping this whole thing on the back of a bunch of individuals—in a relatively small handful of individuals in the country.

I guess my answer to that, if you are going to take the rivers away from us, which you will by user fees, then for goodness sakes, enforce the Staggers Act and give us the clause that protects the capital shipper and why can't we get the ICC to do that?

Senator ABDNOR. User fees of any kind will put barges out of business?

Mr. CHRISTIANSEN. From Montana, yes. I think there's no doubt.

Senator **Abdnor**. I point out the DOT study said that isn't going to happen.

Mr. **Christiansen**. Everybody is talking about the DOT study. I've never met anybody in Montana that has ever talked to anybody with the DOT study. Who did they talk to? I didn't speak to them and they did not talk to me. I didn't expect them to talk to me.

I don't know a great deal about anything but somebody, I know, must know something. Have they ever been out here?

Senator **Abdnor**. I really can't answer that Do you know?

Mr. **Christiansen**. How can they do a study about us when they don't even talk to us?

Senator **Abdnor**. I think that's something we'll be happy to find out for ourselves.

Mr. **Christiansen**. Thank you.

Senator **Abdnor**. You know, it's a very important study. We were in St. Paul the other day. The State transportation department did their own study. It's going to be interesting to see how they relate these two different studies.

Senator **Baucus**. It's my understanding that that study started out at $10 million and it was cut to $1 million by this administration. And second, the agriculture study may be cut to zero.

Mr. **Christiansen**. That explains it.

Senator **Baucus**. Well, maybe that's a misunderstanding. That may not be correct but maybe we can straighten it out.

Senator **Abdnor**. Mr. Henry, do you have any comment about that study at all?

Mr. **Henry**. No, Senator, none whatsoever.

Senator **Abdnor**. Well, we're waiting to see what it contains. I have never had a good look at it. And it is partly my fault but believe me, it's one nobody is going to take lightly. And again, we are open to anyone else's studies or comments on the study.

Mr. **Templeton**. I'd like to point out at the present time, at least just recently, that the truck-barge traffic practically dwindled down to nothing for a while at present fees. And I can't see, if you are going to increase your user fees, that Burlington Northern can raise their prices so I don't see this is going to reduce traffic on the Columbia River for wheat and grain from Montana.

Senator **Abdnor**. Can any of you tell my why shipping a bushel of wheat to Portland, one by rail from here the other by truck-barge, how much more is the truck-barge?

Mr. **Henry**. By comparing freight?

Senator **Abdnor**. Yes.

Mr. **Henry**. On a single car, if you move a single car of wheat, the truck-barge cost would be—the transportation cost would be lower. If you moved a 26-car multiple unit out of this area, Great Falls area, I guess it's about a sawoff—they would be about imbalanced. I think possibly they're pretty competitive. And with backhaul trucking, that changes the numbers. If you go further east into some of the other areas where the truck haul is longer to get down to Lewiston or to Pasco, then the rail advantage is going to increase at some point. You are going to get—you are going to lose more competitive area.

Senator **Abdnor**. That's something.

Mr. TEMPLETON. I think Mr. Christiansen has some of the figures on that.

Mr. CHRISTIANSEN. Yeah. Right now it is less than 26-car single for grain right now but inspection fees that three times as great as on rail cars, so that, you know, is a standoff there.

Senator ABDNOR. Is there any reason for that?

Mr. CHRISTIANSEN. Well, you have to inspect three trucks to get the same volume of one railcar, but the point being, better than 95 percent of the grain moving out of Montana is moving by rail and moving by unit trains. The single-car rate is, you know, it's nice to talk about but it isn't being utilized in competition with truck-barge. And unit train rates account for less that 5 percent of single-car volume.

Senator ABDNOR. Thank you.

Senator BAUCUS. I have no specific questions. I just want to compliment each member of the panel, it's been very, very helpful to me. As I understand the general thrust of your statements, it's that more user fees are imposed, the less competition there's going to be in the State and the more detrimental that's going to be to Montana's agriculture unless there is commensurate regulation of the railroad to prohibit a monopoly and prohibit railroads from allowing Montanans to subsidize Kansas producers and so forth.

Mr. CHRISTIANSEN. That doesn't take in new regulation but only the enforcement.

Senator BAUCUS. Is that the general thrust of your testimony?

Mr. TEMPLETON. I am going to emphasize you don't have effective competition to make over 200 percent profit over variable cost, even with present truck-barge rates.

Senator BAUCUS. Thank you very much.

Mr. PURDY. I just want to make a little comment on the word user fees. I think maybe this is just a variation of things that have been said today. We must remember the users are not just those who transport that particular product there. It is the Nation. It is the combination, so in effect, user fees are in effect, I think, it's a play on words that is maybe undue. The users are all of the people who are involved in this. It's the export business; it's the balance of trade, everything. These are the users and we are in a sense paying fees.

Senator BAUCUS. Do any of you have any figures which show what percent of variable cost BN recovered in other parts of the country, say, in Kansas or Nebraska? I heard figures 200 to 300 percent depending on the unit trains and car rates for Montana. Does anybody have any figures on that?

Mr. TEMPLETON. We have some figures.

Senator BAUCUS. For other States?

Mr. TEMPLETON. The class action suit which are used mainly, for example, from other areas but most of our figures involve Montana as far as the return for variable rate.

Senator BAUCUS. I am trying to nail down the degree to which Montanans subsidize other States' producers. Certainly they do not expect that same rate being charged for much greater distances—Kansas and Nebraska compared to Montana? It seemed to be some kind of indication anyway for the moment. Can we narrow that down? It would be more helpful, I think.

Mr. **Templeton**. I might be able to get a few examples based on our study. That would be about all.

Senator **Abdnor**. We were talking about deepwater ports and it was interesting testimony. I guess most of the deepwater ports are self-sustaining such as the Rotter Dam and one in France. We've somehow added extra cost in the construction of them. I don't know how that fits into the overall picture—I guess to make them competitive.

Mr. **Christiansen**. Of course, they have a little bit of an advantage to the extent that the American products set the world price and they can come up to it. And realizing their costs are less for producing, say, the bushel of wheat or whatever, I don't think that Portland—I don't think anybody should think that Portland is going to be something that has to be subsidized for, say, grain. You know, somebody mentioned earlier it's in its infant stage and infants do need support. And infants need a lot of support. But when it goes on and Asian markets develop—and that is the market of the future when we talk about export potential, we're talking about specifically the rim countries. And Portland is going to play a key part in the future part. But we have to help it now. And it's going to take a lot of money.

Senator **Abdnor**. Go ahead.

Mr. **Templeton**. May I, Senator? I spent 12 years in Asia. And at that time, most of your Asian markets did not have deepwater ports. That's why only about 70 percent of them is shallow-draft. Most of them have a limit of about 25,000 tons, in most cases metric tons. But the top of the market is going through at 8 to 9 percent a year. The USDA figures are around 3 to 4 or 5 percent. I feel it still has a growth rate of 6 to 7 percent for the next 10 years yet. That's an average growth.

Senator **Abdnor**. One last question: Any of you think we can devise some kind of formula to take into account the indirect benefits to the public so it isn't all going to be attributable to shippers and the people who use the river for transportation.

Mr. **Henry**. Well, as you know, I was a little upbeat about waterway user fees being a possibility to apply without being inequitable. To qualify that, I think that you have to have some very precise measurement of the commercial navigable benefits and assess only those fees to the O. & M. costs of those to the users fee. And I think you have to get into this broad public benefit area. That's been part of the theory behind it. We've had a recognition that in the improvement of the waterways, there was a large public benefit from flood playing control, from power generations, from—now we have water quality enhancement programs. If we deduct all those costs and assign them to some other people to pay for, it just causes the user to have a precise measurement of that residual navigation benefit which should be his share of the residual, not the full board.

I think we could come up with a system that wouldn't drive the carrier off the waterway. Sure, there will be some costs but they will be modest costs and of the type as the volume of the traffic that Tom just mentioned, as the traffic increases, it will spread further. And maybe we could live with it.

Yes, I think there's a way if we get to it.

Senator ABDNOR. I thank you. I think you know exactly what we are trying to do by holding these hearings. It's not going to be easy but with everyone's help and comments—and even comments on the Department of Transportation study, maybe we can come up with a fair and equitable means of placing user fees into place here.

Well, thank you all. We appreciate it.

STATEMENT OF JON MILLER, UNIVERSITY OF UTAH

Mr. MILLER. My name is Jon R. Miller. I am an assistant professor of economics in the Department of Economics at the University of Utah. In that capacity I do teaching and research in the area of environmental and natural resource economics. For 14 months in 1975 and 1976 I was a Brookings economics policy fellow in residence at the U.S. Water Resources Council and chaired the Council's interagency economics committee. Since that time, I have maintained a personal and scholarly interest in water and related land resources issues. I currently serve as a member of the Sierra Club's national economics committee, an advisory body made up primarily of university economics professors. It is on behalf of the Sierra Club, as a member of its economics committee, that I present these remarks.

As an economist, I welcome the opportunity to discuss the issue of inland waterway user charges, since user charges, appropriately applied, are a tool for improving economic efficiency. For the most part, economists are champions of efficiency, primarily because nobody else is.

We have—most of the statements we have heard today have come from various interests who would be benefitted and who might be harmed by these—by user charges. And certainly economists recognize that public policy decisions depend as much on economics as on efficiency. However, quite often it's important one of the things you want to take into consideration in making a decision on issues such as this—suppose we added up the total gains and total losses from such a policy as water user charges. And in fact, we are trying to do that. What we want is a benefit-cost analysis appropriately defined or appropriately applied.

If we added up all the gains and all the losses, is it possible that the institution of waterway user charges would come out as a gain exceeding losses? In other words, in some sort of benefit broadly conceived? Would it increase the net well-being of society measured as much?

Now, certainly that is not the only consideration that we want to make when we are making a decision on an issue as important as this one. But it's certainly not one that we don't want to ignore altogether.

One of the fundamental principles of economics is that there are no free lunches for society as a whole. Resources are scarce. When resources are used in one activity, they become unavailable for it being used in another activity. In economists' jargon, if you choose one thing, you forego something else.

User fees can be viewed as a counterpart in the public sector to prices in the private sector. I heard today an argument that I have not heard before, that not having user fees is a way of imposing a market-like approach on the inland waterways.

I can't imagine how that is the case. It is possible that a system where the direct users of some type of service have to pay neither the construction or capital costs nor the operation or maintenance costs. Does that resemble anything you can think of would be a market-type approach? No private business would go for it if they cannot expect to receive in returns sufficient revenues to meet and cover the cost of its business.

There are certain goods we produce in the economy—economists call these public goods—where there is a justification for public provision. Now we are talking about private goods, and in this case, the notion of financial integrity as in the private sector should also be applied in the public sector, should we undertake—should we undertake projects where the revenues received would not cover the costs for many goods and services. The price system works in the private sector to assure resources are put to the highest and best use—I say for many goods and services. It's not always the case. We do have market failure of one sort or another.

The way it happens in the private sector is through the simple expedient of making sure that those who use the service value it highly enough to pay for it and hence pay its opportunity cost. Again, the same principle should apply in the public sector.

Today I speak in favor of the Sierra Club's position on waterway user charge stated before this subcommittee earlier this year and I would like to summarize briefly the Sierra Club's position.

The Sierra Club believes 100 percent of all waterway operation and maintenance costs should be recovered from users, including costs of efforts, such as mitigation of fish and wildlife losses and improvement of dredging practices; 100 percent of all new waterway construction and all measures to expand capacity of existing waterways should be recovered from users; the user charge for new construction and expansion should take effect upon enactment of the law and should also apply to uncompleted work on ongoing projects; the O. & M. user charge should be phased in over some reasonable period—we suggest 6 years, but I'm sure that is not a number etched in stone; the user charge could be collected through a variety of mechanisms, many of which have been talked about today, ton-miles, license fees, congestion tolls, et cetera; and finally, a user charge must be purely as a cost recovery mechanism and not as a substitute for other types of environmental and policy review. In other words, we shouldn't—we shouldn't necessarily undertake, say, expansion of the inland waterways just if we could pay for it. We should go through some policy-planning process along with that.

Senator ABDNOR. Thank you.

STATEMENT OF PATRICK UNDERWOOD, MONTANA FARM BUREAU

Mr. UNDERWOOD. Thank you, Mr. Chairman, Senator Baucus, my name is Patrick Underwood and I am the director of information for the Montana Farm Bureau. I am here today to testify on behalf of Mr. McQuinn. He, too, is busy with combining operations on his ranch and it's his payday.

The Montana Farm Bureau supports the development of a sound, long-range national transportation policy composing all modes of transportation, the development of a policy that is a more economic and energy efficient method of meeting the transportation needs of the future for this trade and our Nation.

We favor encouragement of intermodium in transportation. We accept the imposition of a reasonable user fee on water transportation dedicated for waterway purposes providing that its basis and maximum level are clearly established in advance, that the process is utilized for those waterways from which fees are derived, any user fees applied for water transportation should be at a level which will provide no more than that portion of the cost of the waterways attributable to transportation, inasmuch as the waterways also provide significant public benefits and recreation, wildlife preservation, public water supply and flood control.

We do have some major questions regarding this important issue. Some have been brought up already today and I will be very brief. Will the user fee disrupt agricultural export trade? If we are priced out of the market, then the costs to our Nation will exceed the physical gain that the Government will realize from this tax. What will the impact of the user fees be for barge-rail competition? We are no longer able to depend on the ICC to prohibit railroads from unreasonable freight rates and we don't have need to move into higher rates for less service. How can we be sure that the money will be spent on the projects we need?

This, too, has been alluded to: the Bonneville Dam on the Columbia must be rebuilt to accommodate the rapidly growing demand for westward export of grain. It will be a gross injustice to subject the farmer to keep waterway user fees in order to pay for these badly needed waterway improvements. And, last, how can we be sure all costs will be properly allocated among all users of the inland waterway? Recreational beneficiaries, commercial beneficiaries, municipal water systems must share the cost. Environmental projects and military peparedness should be borne by the general public.

I know that a lot of these things have already been covered and I think your committee is sincerely looking at these problems and we appreciate that. I'd like to thank you for inviting us here today.

Senator ABDNOR. Thank you, Mr. Underwood. We appreciate it. Ms. Nielsen?

STATEMENT OF MARY NIELSEN

Ms. NIELSEN. Mr. Chairman, members of the committee, there are some important points that have not been made on a national level and I would like to bring those to your attention.

My organization urges this subcommittee to give full consideration to the impact that the porposals will have on the movements of grain and agriculture-related shipments, such as fertilizer, et cetera, and the effect that this will have on that farm income and, therefore, on the economy of the country.

The legislation that you are studying proposes that users fees will be established to be paid by only those vessels that use the waterways. It says, in effect, that only those vessel owners benefit from the waterways so they should pay all the operating and maintenance expenses. But how about the man who hauls shipments to the barges on his truck and the man who sells the truck? How about the coal mine owners and their employees? Those who use the coal, the flour, the fuel shipments and the power generated by the water? Are these not all benefiting from the waterways? Are they not all users as well? Under the current system, they all pay through the present Federal program. All forms of transportation benefit all citizens whether they use them directly or not.

An excellent report titled "U.S. Grain Transportation Network Needs System Perspective To Meet Future World Needs" was issued by the Comptroller General of the United States in April 1981. This report has many good recommendations and I would urge it be used as part of the study presently being made by this committee. The report was written at the request of Senator Baucus.

When the appropriations were cut back for section 205 user charge impact study, it is my understanding that the funding for the USDA portion of the study was eliminated entirely. That is pretty significant. In 1978, the 4 cents additional fuel tax on waterway users was passed on to the the farmer the very next day after it went into effect to the tune of 9 cents a bushel from Pasco to Portland. This was not absorbed by the barge lines. It was passed on to the farmers. They also had to pay that extra shipping charge on the fertilizer that was brought to him.

The agricultural producer is the only businessman in this country that cannot pass on his increasing costs. He pays for all of his own shipments coming and going on everything he produces and everything he uses.

How long can a Nation survive when all increased costs are passed down until they reach the base of the economy—the only renewable resource there is—agriculture?

WIFE urges this committee to recommend that before any further action be taken, action that will so radically change the system that we have had for the past 150 years, that a more thorough cost allocation study be performed by the Corps of Engineers and that the effect of that study on agricultural producers be thoroughly evaluated. I firmly believe that until this morning I heard Mr. Boire indicate that the corps can only define costs that are directly attributable to commercial users and that is not a complete cost allocation study.

Finally, WIFE feels strongly that an overall unified, coordinated program monitoring all modes of transportation and directing funding to where it is most needed is vital. Action should not be taken by Congress unless it is fair to all modes and to all citizens.

For too long, the arguments between shipping modes: railroads, trucks, and waterways, have seemed to shift from immediate issue to immediate issue with battles being won by each. For the sake of our Nation, a balance must exist between all forms or these battles will continue indefinitely, resulting in the disruption of commerce in our country.

And all of these conflicting, agriculture with its needs, its ability to produce cheap food for our Nation and the country, its contribution to the economic health of our Nation is usually the last to be considered.

Agricultural problems and transportation problems are interrelated and are everyone's problem.

Again, thank you for inviting me to represent Women Involved in Farm Economics and WIFE is opposed to this legislation as it stands now.

Senator **Abdnor**. Thank you, Ms. Nielsen, for your fine report.

Let me start with Dr. Miller. Just to be a devil's advocate here, if I can, you say that they—the users should pay the entire cost. And I guess that's what we are coming to in Government more and more. But would you follow that all the way through on subsidies, loans we made to different groups in this country? We are having quite a discussion in Washington right now that our park system has become too large, all the moneys are going into purchasing, that we are almost at a dangerous level at some of the facilities, that our parks are not paying for themselves.

Do you think we should assess fees enough for the use of the parks to build new facilities, keep them safe and buy the land we are going to be buying or do we go up to the full rate allowable for student loans? Do we go to the full limit on small business loans? Quit subsidizing? I just wondered how you feel? Do you feel we should be carrying this all the way through Government or do you make exceptions?

Dr. **Miller**. No, I think it's always dangerous to speak for the economic committee of the Sierra Club. It's my personal opinion, and I think I'm a reasonable conservative in these types of economic issues, and where it's possible, where it's possible to assign cost of programs to beneficiaries and it's easy to pinpoint and if it's—well, I don't know if it's possible to pinpoint beneficiaries--yes, I think I take a very broad view of this type of notion.

And again, let me reemphasize that as an economist, I'm not saying that economic efficiency is the only issue. But I think it is certainly one issue that should be addressed along with the equity issues. On the national parks issue, I think whether you actually—we imposed a higher admission fee on national parks, congestion fees or whatever, it's certainly something that should be examined in the deliberations on that type of public policy action.

Senator **Abdnor**. On this particular administration's bill, would you suggest any changes in it?

Dr. **Miller**. Just in general, the things that I feel are most important are the cost recovery, both on operation and maintenance and on construction of new waterways. There may be some specifics that, you know, I may have some problems with. There will be the issue of how to effectively and equitably choose the type of charge mechanism that would be enforced.

Senator **Abdnor**. Do you go along with phasing in these user fees?

Dr. **Miller**. I feel that the user charge for recovery of capital costs, future projects and for work that is not completed, ongoing projects should take effect immediately. On the operation and maintenance recovery operation and maintenance expenditures, given the long history of the fact we have not—that we have not collected those things and the fact that these charges will take effect immediately, you have to have a new—on the capital recovery issue, you have to have a new development rate, so if we don't plan any new waterways right away, then those will be phased in as new requests for authorization come to the Congress.

On the other hand, the operation-maintenance issue takes effect immediately and a phase-in is in essence an equitable issue. It's always better rather than slapping somebody with a change in policy to give them time to adjust gradually over time, so I would support a phase-in not only on the notion that it gives you any more gains and economic efficiency, not that it lowers the cost of transporting the Nation's goods, but just on the notion of fair play.

Senator ABDNOR. Thank you. How would you go for phasing in fees, Ms. Nielsen? Is that more pallatable to you or are you just against all kinds of user fees?

Ms. NIELSEN. I know what you are saying, Mr. Chairman. And I can see the point being made by this bill, I am inclined to think that if this is going to be the coming thing, if it is going to be in the works in the future, then I think that I agree with Mr. Henry's viewpoint that if part of the expenses incurred presently can be designated and just the residue, I believe was the term he said, left can be divided more equally, more equitable and not necessarily by use of the figures of the Corps of Engineers, and then a possible phase-in, this is the only way I can see that it might not hurt agriculture so badly. But in any event, the competitive angle is going to be definitely hurt, no matter how you put these fees in.

Senator ABDNOR. Well, thank you. One last thing. Mr. Underwood, you emphasized the fact you'd rather see Congress approve these fees than living with a commission or administration, is that correct?

Mr. UNDERWOOD. If, as I concluded in my testimony, those questions were properly addressed and we completely understood the answers, I think that probably everything I can say has been covered today. We don't have a national transportation policy. We are in the beginning stages of starting to have one. This whole thing is in infancy. I would certainly agree with the doctor's fear these fees would have to be phased in gradually on the existing system. I don't know if there's any plan to build or how many new systems. Maybe we should have looked at this back in the 1960's when we looked at the Interstate Highway System. But whatever we do, I believe they are going to have to do something before the turn of the century in order to remain competitive. And it is going to hurt, as you have said. I think everybody that's involved in this wants to come up with a proper solution but it's not easy.

Senator ABDNOR. I agree.

Senator BAUCUS. Thank you, Mr. Chairman. I agree with the strong undercurrent that you have stated. Pat, as well as some others, that is basically let's go slow. Let's not jump into something very quickly before we know what the ramifications are.

Mr. UNDERWOOD. That would be true.

Senator BAUCUS. The GAO report which I referred to came up with the same conclusion: let's not look piecemeal to the barge system but also to the highway and rail and see how some of our various proponents of transportation fit together.

Mr. UNDERWOOD. Right.

Senator Baucus. So we don't look only at a small piece of the picture instead of the whole picture. And I think that's very wise. And I commend you for it.

Dr. Miller, do you have any view as to whether any user fee system should be a segment system or whether it should be a ton-mile or flat fee or fuel tax? I'm curious, what kind of user fee seems to make sense here?

Dr. Miller. Well, user fee is used as an economic incentive—well, has the effect of an economic incentive. There are different things that should be separated out here. A user fee for cost recovery of operation and maintenance and for recovery of capital costs is not the same thing as a congestion toll rate. For example, I don't think I would be in favor of using congestion tolls as the user fee to say to collect enough revenues to pay for operation and maintenance of waterways for building new ones. Congestion tolls should be used to alleviate congestion. That's what they are for. And those revenues don't necessarily have to be even tied to the notion of cost recovery.

The notion of having beneficiaries bear the cost is something that should—is one of the things that should guide the choice of user fees. In that regard, the ton-mile effect, the ton-mile fee or the segment charge seems to be more efficient to the extent that costs of operation and maintenance differ across a waterway. It would be more appropriate to charge differential amounts where the costs were higher or lower.

On the other hand, we always have to look at where it's administratively feasible to do all these fine-tuning things and an economist always argues for it.

Senator Baucus. But there are some cases where pure economic theories collide with administrative practicalities. And you are saying that as a good commonsense economist, that even though the theory might lead you in one direction, you might back off and practical administration prevents a significant problem?

What I am really getting at is, let's say someone were to propose that anybody who goes into a national forest, usually at a campground, enjoys the forests, is paying some kind of user fee, then the question is: How do you come to what that person's fee should be? And some people go in everyday. Some people go in once a day or some just enjoy the scenery of the forest from a distance.

There are all sorts of administrative problems in determining what a user fee as a practical matter would be. And as I see it, you are saying that there are practical limitations in opposing a user fee. That's correct, isn't it?

Dr. Miller. There are practical limitations. I think, you know, we should take a look at it and that's certainly one consideration. I would just like to say quite often looking at new national policy changes that require some type of administration, those things are often looked at with the thought, you know, that they are going to be totally administratively unfeasible. And it's just because we don't have experience with doing those things. We don't want to be led off the track.

Senator Baucus. Mary, WIFE, as another farm group, would be less worried about user fees if, say, your organization and agricultural groups felt confident that the regulatory process would assure there would not be monopolistic rate pricing.

Would you and other organizations be less worried about user fees if that were the case, that is that if you could also be assured there would not be monopolies?

Ms. NIELSEN. Absolutely, Senator. This is why we are favoring a national transportation policy. It needs to be balanced and needs to be looked at as one unit.

Senator BAUCUS. So you are not opposed to user fees, per se?

Ms. NIELSEN. I think something needs to be done but what, I don't know, either—just so agriculture does not pay for it all. And we have a lot of grain moving on those waterways.

Senator BAUCUS. In the ideal world, would you tend to prefer paying as you go? That's some kind of user fees so long as that same rationale applied to the rail industry?

So long as say, Nebraska producers are also paying their fair share compared with Montana?

Ms. NIELSEN. I am talking about national transportation as it affects everyone. I actually represent Nebraska, too, on a national level, even though sometimes as a Montana transportation chariman complain about these rates. Yes, I think it affects everyone. And we do feel we need regulation in some areas.

Senator BAUCUS. I want to thank you all very much for coming today. And, Mary, I know you've put in a lot of time and effort. And I thank you for your help here.

Senator ABDNOR. I would just like to add to that our witnesses today have been excellent. We know some have come from a long way off to make it possible and we do appreciate it.

We thank you all, and with that, we'll adjourn our hearing. Thank you.

[Whereupon, the hearing was adjourned to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT

before the

WATER RESOURCES SUBCOMMITTEE of the

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

August 17, 1981

by D. Craig Bell

Executive Director, Western States Water Council

Mr. Chairman, members of the Subcommittee, thank you for the opportunity to testify today concerning water resources policy. My name is Craig Bell. I'm Executive Director of the Western States Water Council. The Council is an organization of representatives appointed by the Governors of 12 western states; Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming. My statement is intended to address a variety of issues of concern to the Council in the water resources area.

As the Subcommittee considers water policy, and appropriate roles of federal and state governments in water resources management, I should note in preface that the states insist that federal involvement in traditional state responsibilities is not in the national interest. New initiatives in water policy must recognize and respect the rights of the states to administer their individual water laws and manage their water resources. I believe this fundamental principle constitutes a basic theme in my subsequent remarks to the Subcommittee. I should also add that

I am summarizing Council positions which I believe would be of interest to the Subcommittee. Attached to my remarks for the record will be the full text of the positions adopted by the Council on these items.

WATER RIGHTS

The Solicitor of the Department of Interior issued an opinion on June 25, 1979 concerning the federal water rights of Interior agencies. The Solicitor included a previously unknown and legally suspect theory of "non-reserved federal water rights" allegedly enabling federal agencies to appropriate water without compliance with state law and without basis in the reservation doctrine.

On April 18, the Council resolved to develop and support enactment of legislation providing that, except for reserved water rights adjudicated to the United States in conjunction with the reservation or withdrawal of lands from the public domain, all rights to the use of water which are or may be claimed by the United States shall be acquired in compliance with procedural and substantive state law.

I should add that it is my understanding that the Administration is in the process of reviewing the former Solicitor's opinion on this issue, and that a revised Solicitor's opinion may be forthcoming soon. If the traditional Congressional deference to state water law is to be recognized and followed, the assertion of non-reserved federal water rights must be terminated.

SECTION 404 of the CLEAN WATER ACT

Interference with the rights of states to allocate water is also a primary concern of the Council with respect to implementation of Section 404 of the Clean Water Act. On July 27, 1979, the Council stated in a position that the Corps of Engineers, in implementing Section 404, was in violation of the intent of Congress in allowing the federal government to subordinate states rights to allocate water. The Council resolved to seek a retraction of the position set forth by the Corps that it may base permit decisions on the fact that water is withdrawn from the water source, and adopted the position that such questions are more properly handled through state water management, allocation and policy determinations. In the event that such a retraction were not forthcoming, the Council resolved to seek Congressional action to assure that 404 permits do not include any condition that conflicts or fails to recognize the actions of a state to authorize or allocate diversions of water.

Subsequently, on January 15 of this year, the Council adopted a position urging that Section 404 be amended to provide that "A permit may not be denied nor conditions required therein for any reason based on the effects of diversion, storage or consumption of water."

The Council also recommended that Section 404 be amended to provide for effective assumption of the 404 program by the appropriate state or interstate entity, and that any implementing regulations for this purpose should leave full flexibility to the states in designing and implementing programs.

ENDANGERED SPECIES ACT

At its just concluded meeting in Coeur d'Alene, the Council adopted a position regarding the Endangered Species Act. The Council found that the Endangered Species Act, as previously construed and implemented, has in several cases, thwarted effective state water resource development, and threatens to continue to do so in the future even as the western states' limited water resources become increasingly important in meeting essential national needs. Therefore, the Western States Water Council urgently requested that the Congress and the Administration carefully reconsider the provisions of the Act and its implementation, and seriously consider the problems and recommendations identified by the Council for amending the Act and improving its administration. The recommendations relate to the listing of species, designation of critical habitat, recovery, state water law, interagency cooperation, jeopardy opinions, biological assessments and the exemption procedure.

We commend this position for consideration by Subcommittee members.

DAM SAFETY

The Council also adopted a position at our most recent meeting regarding proposed dam safety legislation introduced by Senator McClure (S.761). The Council supports many of the concepts found in S.761, but urges the Congress to amend the bill in several respects. While collectively, the western states do not strongly support federal dam safety legislation, the Council states agree that federal initiatives in this area should not usurp state rights, responsibilities and prerogatives. Again, the Council urges Subcommittee members and other members of Congress to consider the recommendations of the Western States Water Council relative to the proposed legislation. The position addresses provisions in the bill related to size of dams, right-of-entry, the state assistance program, and several other provisions of the bill.

RECLAMATION LAW REFORM

The Council has for some years favored reform in the 1902 Federal Reclamation Law. The Council believes that the 160 acre limitation on water deliveries from reclamation projects was adopted in 1902 in light of the then existing agricultural economy and as a means of encouraging and establishing family-size farms on undeveloped public lands at that time without allowance for changes in farm technology and economics. The Council has resolved that there is a need for a reasonable size of farm unit that may receive water deliveries from federal water reclamation projects under conditions relevant and appropriate to each respective area of the nation, in order that such units may be operated efficiently and maintain a competitive position in the agricultural economy of the United States.

To achieve these objectives, the Council has addressed various bills introduced in the previous session of Congress. The Council is again presently in the process of reviewing HR 4265, introduced by Congressman Lujan, and other bills which may be introduced, in order to achieve the objectives of the Council on this issue.

COST SHARING

The Council has not addressed the provisions of S.621, entitled "The National Water Resources Policy and Development Act". However, the Council considered similar legislation introduced in the previous Congress. In a position adopted October 25, 1979, the Council expressed concerns and reservations regarding the cost sharing proposals advanced by Senators Domenici and Moynihan. The Council urged that there be a comprehensive, meaningful, and accurate evaluation of cost sharing proposals before any new legislation is enacted. Specifically, the Council urged a joint federal-state review of cost sharing focusing on the magnitude and significance of existing non-federal cost sharing contributions, analysis of the appropriateness of cost sharing for smaller, intrastate water projects, analysis of the adverse impacts that front-end cost sharing could have upon state and local governments in contrast to existing cost sharing mechanisms, and an analysis of the general mechanisms available to the states to raise their share of any cost sharing proposals. The Council expressed its readiness to participate in the formulation and implementation of such a review.

WATER RESOURCES PLANNING ACT

The Council has not adopted a position with respect to S.1095 introduced by the Subcommittee Chairman or other such proposals advanced in the House, such as HR 3432. Also, the Council has not adopted a position with respect to the Administration's proposal for an Office of Water Policy. However, the Council did provide a letter to Senator Abdnor in April of this year. The Council noted that the Water Resources Council has fallen far short of achieving the purposes of providing a reasonable degree of consistency and a desirable level of coordination among the planning activities and programs of the major federal water agencies. Although the Council has stated that some mechanism should be provided in order to achieve these purposes, a decision as to the form of that mechanism has not yet been arrived at by the Western States Water Council.

However, with respect to Title II River Basin Commissions, the Western States Water Council in the letter to Senator Abdnor supported the continuation of such entities on a voluntary basis for those states which find it to be a useful and effective means for dealing with the water planning needs of their region. However, the Council opposes the imposition of any sanctions, implicit or explicit, upon those states which choose not to participate in the activities of a river basin commission. With respect to the future of the Title III State Grant Program, the Western States Water Council position advised that, should Congress decide to continue funding for this program, it is imperative that such funding be provided in a reliable and timely manner from year to year. The continuity in the amount of funding is far more important to the states than the amount of the funding itself.

The Council over the years has adopted other positions with respect to amendments to the Water Resources Planning Act. Although, as I indicated, the Council has no position with respect to current proposals pending in Congress or being considered by the Administration, I have attached previous positions of the Council concerning the Water Resources Planning Act for the Subcommittee's review.

CONCLUSION

I appreciate very much the opportunity to testify on behalf of the Western States Water Council. As I indicated, the full text of the positions to which I referred are attached to my testimony for your reference. I hope that they might be helpful as this Subcommittee and the Congress address these important issues in the 97th Congress.

STATEMENT OF B. G. HAVDAHL

EXECUTIVE VICE PRESIDENT

MONTANA MOTOR CARRIERS ASSOCIATION, INC.

BEFORE THE

SENATE WATER RESOURCES SUBCOMMITTEE

GREAT FALLS, MONTANA

AUGUST 17, 1981

The following material is a supplement to the statement presented by the Montana Motor Carriers Association, Inc., for the record to the Senate Subcommittee on Water Resources Regarding Increased Waterway Users Fees held on August 17, 1981, in Great Falls, Montana, in response to questions raised regarding Government subsidies to the railroads.

Railroads have been at the public trough ever since the first land grant in 1850. But perhaps 1981 will go down in history as the biggest year for government subsidization of the railroads because according to the Office of Management and Budget (OMB), $4.3 billion will be spent on railroad programs. In order to comprehend such a massive subsidy, consider the following:

All Class I railroads (earnings over $50 million) generated slightly more than $26 billion in freight revenue in 1980.

Federal subsidies will be over three times greater than their net operating income of $1.3 billion.

Income taxes paid to state and federal governments amounted to $310 million or 7.2 percent of the federal subsidy (310/4300).

In 1978, there were 190,555 miles of railroad track. Assuming the same miles in 1981, the subsidy would be $22,781 per mile of track.

In 1979, railroads originated 1.5 billion tons of freight. Again, assuming the same amount of freight in 1981, the federal government subsidy amounts to $2.87 per ton of freight moved.

Unlike the motor carrier industry, the railroads have a modal administrator in the Department of Transportation called the Federal Railroad Administration (FRA) whose primary responsibility is to look out for the nation's railroads. To do this, FRA will receive $3.7 billion, excluding $956 million which goes to the National Railroad Passenger Corporation (Amtrak). Among the services performed by FRA for the railroads is $5.9 million earmarked for "railroad operational improvements" to "identify and evaluate improvements in the area of freight operations," including "service reliability, fuel efficiency, labor/management relations, and classification yard problems". No similar programs are available for motor carriers.

FRA operates a $95 million railroad research facility in Pueblo, Colorado, costing $10 million in 1981. An additional $10 million will be spent in "safety research" at this facility. No similar facility is available to the motor carrier industry.

The biggest single outlay of funds by FRA in 1981 will be a $2.3 billion settlement for a lawsuit with the Penn Central Corporation over the value of properties transferred to Conrail in 1976. Actual settlements is 1.46 billion, but interest at 8% brought the total to $84 million. Additional settlements totaling untold additional millions have yet to be reached with six other bankrupt railroads whose properties were also transferred to Conrail.

FRA also provides direct loans and guarantees to help railroads finance capital improvements. FRA also guarantees long-term debt obligations issued by railroads to finance new facilities and rehabilitate existing equipment. Some FRA guarantees have been issued to railroads under bankruptcy reorganization.

According to the Office of Management and Budget (OMB): "Compared with other forms of railroad assistance, this program entails an extremely high subsidy rate, carrying an effective interest rate of only 2% (yield to maturity)."

Moreover, not all these loans have been repaid. According to a [illegible], railroads are listed along with better known groups such as students, minority enterprises and foreign governments who have not repaid government loans. The greatest portion of debt owed to the U. S. government is in the form of "loan receivables" which totaled $150 billion at September 30, 1979. On that date, the Department of Transportation had $1.2 billion total Accounts and Loans Receivable. Of that amount, the FRA was carrying $449 million in delinquent loan receivables. The interest alone at 12% on $449 million is $54 million. This $54 million increases the cost of government and is ultimately passed on to the taxpayer, including the motor carrier industry.

In 1981, new guarantee obligations are $395 million, with almost $300 million going to Conrail. Some of this money is also used to provide assistance to states for rail planning and for support for rail service on low traffic branchlines. Eighty million dollars was budgeted for this program in 1981. Yet in its analysis of this program, OMB found:

> Traffic on the supported lines is so light that interstate commerce will not be disrupted. The supported lines carry less than 0.5% of nationwide rail traffic.
>
> Over 25% of the funds are allocated to states with little or no branchline rail service problems.
>
> Many of the subsidized rail lines will be abandoned, carrying less than three million gross tons per mile annually.

In 1982, $354 million is estimated for these projects, with $320 million earmarked for restructuring projects in the Mid-West related to the bankruptcies of the Rock Island and Milwaukee Road. Interestingly, these two railroads had combined gross incomes of $728.3 million. Yet no similar program is available to the motor carrier industry, which witnessed the demise of more than 15 major companies with combined revenues of $454 million.

The primary responsibility of the United States Railway Association (USRA) is to provide and monitor the federal funds which are available to Conrail for working capital and rehabilitation. Since Conrail's founding five years ago, Congress appropriated $3.3 billion to rebuild and sustain this loss-plagued railroad. Thus far, losses have totaled $1.8 billion.

USRA's administrative expenses will be $30 million in 1981. In addition, USRA will purchase over $185 million in Conrail stock in the form of series A preferred stock. Since the creation of Conrail, USRA has purchased $3.1 billion in Conrail stock and securities.

Yet with all this funding, there is little hope that Conrail will ever be a profit making enterprise. Declining carloadings, [illegible] labor protection agreements, and high fixed maintenance costs make it unlikely that the railroad will ever be in the black. Ironically, all the federal funds for Conrail aid even the profitable railroads. Part of the subsidy goes to these profitable railroads. Of the $305 million in deficit traffic Conrail recorded in 1979, over $233 million - 77 percent - was interline traffic. Most of these losses were the result of inequitable divisions on joint rates between Conrail and profitable railroads.

The railroads have not adequately funded their existing industry pension plan which is insolvent and will be out of funds by April, 1982. Since 1974, the federal government has authorized annual appropriations to subsidize the pension fund. In 1974, the subsidy was $250 million. In 1981, the subsidy had grown to $350 million or 40% higher. In its analysis of the budget, OMB found some very interesting, but little known, facts that have emerged about this subsidy.

> The rail pension plan has responsibility for one million beneficiaries and 500,000 rail workers. The nation's taxpayers now annually subsidize the rail industry pension by $700 per rail worker. The rail industry seeks to double this windfall subsidy.
>
> Yet rail earnings will average over $29,800 in 1982, placing rail employees among the highest paid workers in America.
>
> Rail pensions are among the richest multi-employer pensions. Railroaders' pensions exceed Federal Civil Service or Military Retirement payments for comparable earnings.

Other "hidden" subsidies to the railroads are, for example, $1 million obligated in 1982 to the Railroad Accounting Principles Board which was authorized by the Railroad Deregulation Act to establish: "Principles" governing the determination of economically accurate railroad costs directly and indirectly associated with particular movement of goods, including the variable costs associated with particular goods...
Another $755,000 in 1982 is for the Special Rail Reorganization Court established by the Rail Reorganization Act of 1973. The

largest single line item for this court is something called "Other Services" for $400,000. Five thousand dollars will be spent on "lawbooks."

Contrary to the claims of the railroads, they are a heavily subsidized mode. In 1981, they will receive $4.3 billion in subsidies on gross revenues of $26 billion, and net income of $1.3 billion. If success were measured by increased subsidies, rather than increased profits, the railroads would be considered successful indeed.

This material has been compiled from government records and other sources by the American Trucking Associations, Inc., Washington, D.C.

Great Falls, Montana
August 17, 1981

Position Statement of the Idaho Wheat Commission and Idaho State Wheat Growers Association as to Shallow Draft Waterway User Fees considered in S-810, H.R. 2962 and Senator Domenici's substitute Amendment No. 32.

Submitted by: Robert L. Henry
P. O. Box 716
Boise, ID 83701

I serve as the transportation consultant to the Idaho Wheat Commission and Idaho State Wheat Growers Association, Inc. and have been authorized to submit these views in behalf of these parties. The Commission is a subdivision of State Government supported by tax upon wheat grown in Idaho and sold into commercial channels. The Growers' Association is a voluntary nonprofit corporation supported by dues contributions of grower members. The legislative mandate under which the Commission operates charges it with responsibility to act in behalf of all the grower interests of the state. The membership of the Growers Association is drawn from the ranks of wheat ranchers in all areas of the state and the two voices, joined as they are in this presentation, should be taken to be fairly representative of the views of Idaho Wheat producers.

Our concerns with these proposals, naturally enough, have a prime focus with the potential impacts on the Columbia/ Snake River Shallow Draft Waterway System. Since, however, the scope of the legislation is national and a significant new national transportation policy is being enunciated, there seems no practical way of installing a parochial - Pacific Northwest - limit to our observation and we attempt to recognize this in our approach.

Our position notes the need, rationale and sentiment prevalent in this and past Administrations, this and past Congresses and the tax paying public at large, to control and reduce federal expenditure. We favor sensible movement in this direction. Utilization of user fees can be seen as a means of achieving the goal.

Waterway user fees can play a rational and equitable part in the program. We do not see them as intrinsically unjust or necessarily destructive - but we must urge safeguards be incorporated, if and when they are enacted, to insure that evil effects are avoided.

Not to belabor all the points and issues of the ongoing debates with respect these proposals we note:

1) There may be merit to criticism of the measure in its "Antiwaterway Bias." Waterway economists have established measure of unreimbursed federal railroad subsidy. For the twenty years ended in 1978 federal capital assistance grants to railroads came to $8.25 billion. Since 1824 it is calculated that total federal spending for navigational improvements on all inland waterways, amounted to $7 billion.

   Currently "Conrail" funding is being considered at another $262 million for the coming year.

Annually the U.S. General Fund contribution to Railroad Retirement Fund is approximately an equivalent to the Corps of Engineers' annual outlay for operation and maintenance on commercial navigation shallow draft waterway programs.

Yet railroads, the most vocal of all supporters of this measure, characterize user fees on the waterways as a move toward modal equity. Many features of the bill are identifiable as those advocated by the railroads in the past. For this reason, we feel care must be taken in the approach to user fees to make certain that there is no pervading antiwaterway "animus."

For those reasons we see support for the claims "modal equity" requires even handed treatment of both the federal outlay on waterways and the federal outlays benefitting railroads on the same timetable.

2) When Congress retreated, in the Inland Waterway Revenue Act of 1978, from its 150 year old policy of keeping America's waterways "forever free" of federal imposts and fees, Section 205 provided for a study and report back to Congress on the impact of usage fees. This report was due on September 30, 1981. The provision of the new law would install a new set of fees on October 1, 1981. The net

practical result provides no time for review of the Section 205 Report and makes the 1978 Congressional requirement meaningless and wasteful. We, therefore, see logic behind the position of those who would urge new legislation delayed long enough to permit review of the Section 205 Report data.

3) Congestion Fees - We see no justification for congestion fees if recovery of new construction and rehabilitation costs are made. We urge provisions enabling use of such a device be deleted.

4) Prescription of Annual Fees, Structure of Fees - We agree with those opponents of these features of the bill that delegation of complete discretion - in such important and broad areas of impact - is not advised. Approval of Secretary of Army plans for budget, fee structure and fee levels, as a very minimum of Legislative Branch control, should follow approval of appropriate Joint Committee. Adequate public notice to permit public inputs to elected members of the Joint Committee should be a feature of the process.

5) Proposed Fees - We see the authorization of so many types of fees and imposts as needlessly complex and too susceptible to inequitable and uneconomic application. A vessel license fee - at a level designed to recover only costs of licensing for purposes of proper identification would seem appropriate.

A user fee levied by ton-mile of haul, based at levels to provide recovery of O&M costs in connection with precisely identified and allocated shallow draft navigation facilities, as projected for overall segments of individual waterway systems, is preferred as the sole authorized means of recovering such expense. (Such "overall segments of individual waterways" are taken to mean, in this use, as an application to shallow draft reaches of a system as a whole, such as Bonneville Dam at the lower end and Lewiston, Idaho on the upper end, of the Columbia/Snake system.)

A capital cost recovery fee, for new construction or major rehabilitation expenditures, should be provided as a Lockage Charge, a Pool Fee or as an addition to the Ton-Mile charge assessed on the "overall segment of individual waterway." Selection of the particular option to be used in amortizing the cost to be based upon consideration of public interest, impact on waterway usage costs, competitive impact among modes, commodity origins and like concerns.

We urge authorization of fees assessed by such categories will reduce administrative costs and have other desired effects and are the only fees which should be permitted.

6) Amortization Period for New Construction and Rehabilitation - We agree with others who observe

that a fifteen year amortization life for rehabilitation expense and fifty years for new construction projects is unreasonable in the expectation of service lives far beyond such periods. We urge that the individual circumstances and features of each project must be considered and that the specified terms be provided as minimum amortization periods with the actual period to be the anticipated operational or useful life before the improvement becomes obsolescent.

7) Exact Measurement of Commercial Navigation Benefit - We see an absolute necessity for usage fees to be identified to precise measurement of commercial navigation benefit. Administrative, overhead, operational and maintenance costs to be isolated and allocated in the best available technology to insure the expense associated no other public benefit is assigned to waterway usage fee recovery.

8) Public Benefit - We see the need and justification for broad public benefit consideration to be specifically spelled out in an assignment of general waterway program expense excluded from recovery in usage fees. In such areas we see concerns such as recreational usage, flood control, stream flow enhancement, water resource conservation, plant site land value enhancement, and economic and social program benefits all present as bestowals

upon the local, regional and broad public interests - in some measure - from all waterway improvements - even those identified only as navigational benefit programs. These principles were validly observed in prior years and are as necessary today in equity to waterway users. We urge appropriate reflection be made in the allocation of expenses to waterway users.

3) Distressed Segment Relief and Grace Periods - In embarking on the course to recovery of these federal expenses some provision should be made to allow a period of grace on waterway segments where fees at the full level necessary to recover costs would make the waterway non-competitive and lessen the public return for the investment already made. Where reasonable expectations exist that in a reasonable future time, base traffic flow will enlarge to the point where waterway usage can pay full cost recovery, the usage fees should be held to a level which permits recovery of as much expense as possible without destroying the economic incentive for waterway usage. A deficit recovery fund should be established to accumulate unrecovered expense till such times, reasonably forseen to come in years ahead, as the expanding flow of waterway commerce can pay not only current fees but an amount beyond that to

recover for the Inland Waterway Trust Fund the accumulated deficit.

The energy savings of waterway carriage versus those of other modes, the preservation of existing industry and commerce of destressed waterways and the enlargement of GNP through agricultural and industrial expansion as such waterways are cloaked with such unmistakable public interest that such provisions appear justified.

Given consideration of such points as these we feel most of the questionable features of the proposal would be eliminated. The approach of Senator Hatfield, however, in his S-1585 introduction, Waterways Transportation Development Act of 1981 may be a more desirable measure and must be considered carefully before any action is finalized.

Respectfully submitted,

R. L. Henry
Transportation Consultant

Brotherhood of Locomotive Engineers
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Senator Max Baucus
Dirksen Senate Office Building
Washington D.C. 20510

Dear Senator Baucus

I am writing this letter in regards to the hearing that you are holding in Great Falls, Montana, on August 17, 1981, at the Heritage Inn, on taxation of the Barge Line Operation. Because of the time allowed and not being able to testify at this hearing on behalf of the members of the Brotherhood of Locomotive Engineers of Montana, we would like this statement submitted for the records.

As members of the railroad industry we feel that the Federal Government has done more than is necessary to keep the barge line operating. We feel that there should be an adequate usury tax placed on all barge lines in the United States. The American freight railroads have to build and maintain their own right-of-way where as the taxpayer builds and maintains the right-of-way for the barges. The railroads invest in and maintain their signals and other traffic control devices. The general taxpayer provides navigation aids and ice breaking services to the barge industry. The railroads pay more than $180 million annually in ad valorem taxes on right-of-ways to school districts and local communities. Barge operators pay no such taxes on their taxpayer supplied right-of-ways.

Barge lines are owned by major oil, steel, and international grain marketing companies and they receive 17 times more Federal aid than do the railroads. Federal subsidies to barge operators today exceed 42 percent of all barge revenues. The day has arrived for the barge industry to start paying an adequate usury tax for the right-of-ways of our water ways.

Thank you.

Sincerely

Calvin L Burr Jr

Calvin L. Burr Jr.
Chairman of B.L.E. of Montana
State Legislative Board

WATER RESOURCES POLICY ISSUES

TUESDAY, AUGUST 18, 1981

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON WATER RESOURCES,
Rapid City, S. Dak.

The subcommittee met at 9:30 a.m., in the Rushmore Plaza Civic Center, Hon. James Abdnor (chairman) presiding.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator ABDNOR. We will call the subcommittee to order.

It is great to be back in South Dakota. I have seen the rest of the Central and Western United States, including Alaska while holding water hearings around the country because we have some of the most major issues this country has faced in a long time in water policy and it seems like every area we go to has a different concern that we are hearing.

I know South Dakota will be unique to Senator Domenici from what we heard down in his State and in Alaska.

This is the year that we are going to try to come forward with a new water policy program and then, of course, specific legislation involved, too.

But, it is great to be back here. I have never seen the Black Hills look finer and I am happy with that because I have been telling Senator Domenici all about it. We are going to hear South Dakotans on specific issues. We are going to focus on related water resources development.

I am pleased to have South Dakota's very able Director of Water and Natural Resources, Bob Neufeld, who will be testifying.

Let me say: Down in Washington and in front of the Public Works Committee, Bob Neufeld is recognized as one of the real water authorities in the United States. Also we are glad to have with us Dr. Henry Caulfield, the first Director of the President's Water Resources Council and Dr. Caulfield has come here to give us his perceptions on the need for a national planning on water policy because right now this country has none.

We are going to discuss flood plain management and issues related to water and energy development. We have a number of people here from South Dakota and Nebraska to discuss the proposed ETSI pipeline, including Mr. Fred Eiserman of the ETSI group who will also testify on the plans for the pipeline and its anticipated impact, and we appreciate the opportunity to discuss this with him.

I am particularly pleased, of course, that I was able to prevail upon Senator Pete Domenici to be with us today. I think many of you recognize that name; it's almost become a household word. Pete has directed the Senate's Budget Committee over these last 6 months and he just completed the budget reconciliation which was considered a very major victory for the President and no one had more to do with it than Senator Domenici. He has been a member of the Public Works Committee for a long time and has been the ranking minority member on this subcommittee and now that the Republicans have taken over he would have been chairman except his other business as Budget Committee chairman have made it impossible. He is also a member of the Senate Energy and Natural Resources Committee which is another major committee, so I am really happy that he is here taking a look at our Black Hills. I wish he could stay longer because I think he would like to see our Black Hills and enjoy it as much as I did looking over New Mexico.

We do have a lot of similarities in our State, Pete. You would be surprised if you spent a little time here you would see the same kind of problems you have there, but we want to welcome you to Rapid City.

Would you care to make a statement?

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator DOMENICI. Thank you, Mr. Chairman. I don't want to take much time.

I just want to state that I am pleased to be here and to be working with you. I am sure you are aware that the subcommittee that you Chair has a very major job, as you have indicated. We have to come up with some overall water policies for our country. We don't have any now.

I commend you for taking the initiative, Mr. Chairman, and your Senate bill No. 1095 I am hopeful that we can get the administration to begin to work with us so we can develop some kind of coordinated planning entity for the country.

I am sure, and you people know, and particularly those who are involved with water, that this country doesn't have a project development strategy. It has just an ad hoc policy, a kind of whoever gets the bill in first and pushes it through gets a project going. The experts should know that it now takes about 26 years for a Corps of Engineer's project from the time we authorize it until we break ground. That's a rather significant indictment, Mr. Chairman, of the process.

The States have very little involvement, if any. We have a backlog, believe it or not, of authorized projects, some of which are 20 and 30 years old and they are now $50 billion, and we are spending slightly over two for the whole Corps. So, it seems we ought to clean out some of that brush that's there and start anew.

I am sorry that I won't be here later this afternoon, Mr. Chairman, when your distinguished Governor discusses your State's overall strategy and the effort of the State to put together an overall plan. But, from what I understand he has some exciting concepts and I am hopeful that we will evolve a national policy that will permit that kind of program to fit right into our country's policy rather than the way we have been doing it.

With that let me thank you for your hospitality and I look forward to hearing from the witnesses. Thank you very much.

Senator **Abdnor**. We do have a fine group of witnesses. Many of them are close friends of mine from days in the legislature and days of campaigning.

Our Governor will be in at 2 o'clock. He has several things to do today including a long-time commitment at a noon program giving an award.

Let me say we seem to have a long list of witnesses. This is great except there are only so many hours in the day. We may have to be a little short with people and I am sorry because these things happen. But, when I look over the list and the problems, I kind of shake my head. Some of you will have prepared written statements which is good and I assure you every word and every comma in that statement will be presented in the record and in some cases we would like to have you just summarize because there will be questions we would like to ask you for the record. If you don't get it all said, please don't think that it won't be in the record because it will.

With that, we have got a great group to start out with, Senator Domenici. Our State legislators have made up a legislative task force and I am going to ask them to come forward. Marvis Hogen, Don Hamm, Verne Thorstenson, Jack Manke, and Kay Jorgensen, all members of the South Dakota State Legislature. It is a good group to start out with and tell us about the legislative task force.

Do you people have an official chairman among you?

Mr. **Hamm**. Senator Manke.

Senator **Abdnor**. Incidentally, Jack Manke is a brother-in-law to John Melcher.

You have statements?

Mr. **Manke**. We may be a little confused. I think probably all of us have statements. What do you think about the time?

Senator **Abdnor**. We don't want to short change you. Can you summarize it in 10 minutes?

Mr. **Manke**. Easily; yes.

I think, then, we will start out with Senator Hogen. Senator Hogen is from Kadoka, which is kind of out in the more central part of our West River area.

STATEMENT OF HON. MARVIS HOGEN, SOUTH DAKOTA STATE LEGISLATURE

Senator **Hogen**. Senators, briefly here is what I have to say. I cannot say a great deal about how desperately we need water when the Senator from New Mexico is here because I just went across his State twice and he has a water problem, too. But, here is what I want to make you aware of.

There are numbers that everyone knows, but I want to remind you again. I think that there is a vast pool of water in the Missouri River down there that we must use. Studies indicate that if every projected use of that water became a reality that was planned, by the year 2000 there would still be 6 million acre-feet of water there unappropriated. There is plenty of water there and I think we need to use it, and I think also it is going to be more and more recognized that it is going to be in the interest of the national energy policy to move coal from Wyoming to the Central South by a coal slurry pipeline, so I think that you should take a close look at that and do everything possible we can to get water from the Missouri River to Wyoming for that use and let the communities in South Dakota that so desperately need the water get a few drops of it as it goes by.

We must do something to see that this water is not drawn from the Madison formation for that use. I know that all the focus has been on the area out there where Jack lives, but I think we should take a look at the communities out in central South Dakota; namely, Midland, Wall, those communities that use Madison formation water and many other communities and individual farmers that use Fall River water.

I know from absolute personal experience because I installed with my own hands the first deep well pump from my municipality to take that water out of that formation and I changed it several times through the years and that water table is dropping rapidly.

I don't know what these towns are going to do soon, even under the present circumstances with a drawdown from the Madison formation and it has been projected that that drawdown there will affect these other formations as much as 90 percent or as little as 25 percent. Nobody knows for sure what will affect them.

So, in summation all I have to say is this: There is plenty of water for our use in the Missouri River. I think that we should do whatever is necessary to make it practical to get that water from the Missouri River to Wyoming for not only coal transportation use, but for other energy developments, and as a result we won't have to tap the Madison formation; it will do damage that we can't even foresee.

Finally it is absolutely financially impractical for these communities in western South Dakota, because they have tried it, they have spent tens of thousands of dollars of their own money studying how they could get Missouri water out there without a subsidy. They can't do it. Our political and population clout is too small to get the Federal or State money that it would take to subsidize it. The only subsidy available to us is from the energy companies. And if that pipeline goes around there we don't want a free ride, but we want a ride that we can afford.

All I am saying: Let's get a pipeline across western South Dakota to Wyoming as quickly as possible. Thank you.

Senator **ABDNOR**. He knows what he is talking about. He is very knowledgeable.

STATEMENT OF HON. DON HAMM, SOUTH DAKOTA LEGISLATURE

Representative **HAMM**. Chairman Abdnor and Senator Domenici, we appreciate this opportunity for you to be here and for us to talk to you about this controversial problem, it really is.

Having grown up on a ranch, an irrigated ranch just north of Rapid City, I have seen through the years what happens when our springs and our streams coming out of the Black Hills dry up, especially in this water-short area. So, I am very concerned and I know the people in western South Dakota and Wyoming, eastern Wyoming, are very concerned about the possible detrimental effect that could occur with the drawdown of the Madison formation; of course with the 20,000 acre-feet proposed that ETSI draw out of the Madison formation.

As Senator Hogen pointed out it makes more sense to me and to many of us with that excess of 8 to 10 million acre-feet every year that flows down the Missouri River and into the gulf, with a total of 21 million acre-feet and in an average year that we utilize that water for industrial purposes. We need every drop of water that there is in ground water and aquifers and surface water in Wyoming, and the South Dakota for domestic and agricultural use.

It just doesn't make sense with the water short areas, semiarid areas of which we have to use that water for industrial purposes when we have that excess that short a distance.

I think the other thing that we have to consider very seriously is the proposed WET system and that is using the waste water effluent from our hills down, Rapid City, and the other towns here in the hills, if we can economically afford to do that for other water development for replacement of that effluent which goes into Rapid Creek right here in Rapid City and the other creeks for irrigation, and for livestock use on down those streams. I think it is important that we replace that water before we go into the WET system.

I would sure recommend and highly endorse, Senator Abdnor's bill No. 1525 and that is that the Corps of Army Engineers study the Madison aquifer and what the quantitative and qualitative problems might be with the drawdown, possible drawdown of that aquifer before ETSI be allowed to take that water. I think that is very, very important because there is a number of reports that indicate, I have seen all the way from 5 to 1,000 feet drawdown on the Madison aquifer, and it seems very important to me that with that much unknown that we look at a known quantity in the Oahe Reservoir, the proposed West River Aqueduct where we know that will only drawdown that dam, that lake, three-quarters of an inch in an average year's time. So, I think that it is important when we know the three-quarters of an inch and we don't have any idea how much it is going to drawdown the Madison formation, so I would urge you to do everything you can to utilize that excess water we have, especially in this semiarid area.

Thank you very much.

Senator ABDNOR. Thank you. This young lady was a page when I was Senator. That tells how old I am getting. She is a successful representative now serving several terms.

STATEMENT OF HON. KAY S. JORGENSEN, SOUTH DAKOTA STATE LEGISLATURE

Representative JORGENSEN. Thank you, Senator. I had good teachers.

It is a pleasure to be here today. Rather than read from this text, which you can certainly do at your leisure, I would like to just express a couple of thoughts.

You will hear whenever you talk to people in this area two very consistent themes: One, concern for the use or misuse of the Madison formation water, in fact, any ground water resources. One thing that is stated constantly is a recognition that we have now that the overuse of ground water such as the Ogallala aquifer shows that you can draw those down to a point of not being able to use the resources that were once plentiful to this Nation. We don't have to make the same mistake twice. We can learn from those mistakes and choose other alternatives that will allow us to develop properly a resource without being obstructionists in our attitude.

That's the second theme, not only are people concerned about the use of the Madison and the preservation of that water for local and regional use, but they are very concerned and very adamant in their wanting the proper development of water resources. It's already been stated, it will be stated several times again today, I am sure, that we have alternatives developed in this area or that can be developed that can provide the kind of water, for example, to use in a slurry pipeline, also to provide sources of water for domestic and agricultural uses.

Since I come from a district of the Black Hills that is recognized for its tourism industry, I would also like to touch on that.

We know it's obvious what will happen if we haven't sufficient water resources for a community, sufficient water resources for a agricultural unit, but we often exclude talking about what happens in tourism and recreation. There is the McNenny Fish Hatchery along the stateline, and ranch A facilities along Sand Creek in Wyoming. The McNenny Fish Hatchery takes its water directly from the Madison. Sand Creek has the potential of use of that Madison in terms of a supply source and if the drawdown were sufficient, as we seem to be concerned about now, that it would withdraw enough water from those sources, that those fisheries would be in considerable trouble. As a result of that the blue ribbon trout streams that are such a tremendous recreational resource, from agricultural consequences as well, those resources would be diminished and instead of having the kind of resurgent in tourism that we have seen this year that has created smiles all across this area, we would see a return to at least a diminishing of those people because they are coming for quality recreational areas, quality visitor experiences that this whole region can provide, so water is not just of concern in the obvious, but it has many secondary factors that we need to take careful consideration of in making our judgments and we try to help you in the Federal policy.

I would like to urge that when and where possible the use of ground water, in this case especially the Madison formation water, not be allowed to be utilized for industrial purposes, that all alternative sytems such as the WET system, West River Aqueduct, other area resources such as for slurry, for example, methanol has been discussed as use of a slurry medium in Colorado, that those alternatives be used and they specifically not be considered as supplemental to Madison water, but alternatives to that when and wherever possible our States work together to develop regional water law and address our problems as much on a local level as we possibly can, reflecting the direction of national need.

In a letter that you just sent out, Senator Abdnor, I couldn't resist quoting from that because it seemed to me to talk as much to the issue of my constituents and my own personal feelings as anything else. You said that: "There are no guarantees in any event, but only by joining together and emphasizing our points of agreement can we enhance chances of a positive outcome."

I can't say it better. Thank you for your help.

Senator ABDNOR. Thank you.

STATEMENT OF HON. VERNE E. THORSTENSON, SOUTH DAKOTA STATE LEGISLATURE

Mr. THORSTENSON. Senators and staff, the two major items that I am going to mention in terms of the premises is that, first, water is a replenishable resource and should be used for the benefit of mankind.

The second is that the contractual arrangement made by ETSI with the State of Wyoming are enforceable. There has been three proposals that have been in this area for purposes of providing the type of water necessary for coal slurry pipelines and that is an aqueduct from the Missouri River to Wyoming, waste water from the cities in the foothills of the Black Hills and water wells.

You can see quickly the choice that ETSI made that was the most expedient one, that is, that the water from water wells was available. ETSI didn't have the right of condemnation. They had a lot of lift from 1,800 feet if the water is going to be derived from the Missouri River to over 5 feet lift, and when you are talking about lifting water that's a huge cost. Incidently, there is replacement water available in our area for the Rapid City area, that is the city of Rapid City sewer could come from Victoria Creek. It is only a mile away from Rapid City and that water could come over the hill over into the Rapid Creek drainage area.

My proposal is that in fact we have dams at high elevations. I notice that the Northern Great Plains program a decade ago was working on impoundments over in Wyoming and I didn't see any impoundments on the western slope of the Black Hills as suggested sites. The impoundment on the Moorcroft Resevoir was suggested but it would appear to me like we have streams in the Black Hills that would produce the kind of water quantity necessary. And rather than requiring power production to lift the discharging water at high elevations to produce power, make water available for oil wells secondary recovery, if that still remains a viable program for secondary oil recovery, and still that water would be available for such things as the coal slurry pipeline.

I will say, though, that water at the upper regions of the streams in the Black Hills is of very high quality and, of course, if you are going to be using all of the water of high quality for things like coal slurry, it may very well be better to use water from such as the Madison and save the upper reaches of high quality water for domestic uses.

We have many flowing streams in the Black hills that are at or above the 4,000 foot level. Elk Creek, Spring Creek, Battle Creek, French Creek, Beaver Creek, Salt Creek, Sand Creek, are all examples and, of course, the Belle Fourche River is even over in Wyoming.

Let me give you an example. Stockade-Beaver near Newcastle down to the southwest of us has an average ft^3/s. of 12.8 This figures out a little over 9,000 acre-feet per year on one little stream in the southwestern Black Hills. Putting that into perspective, the average pumping that ETSI is going to suggest is about 15,000 acre-feet per year. They have a permit for 18,800 acre-feet from the State of Wyoming.

There are three dams, if you were to follow this concept, three dams of 10,000 acre-feet would have 30,000 acre-feet in it, and if you were to use half of that for purposes of the water distribution, you would still have half of that available for such use as reserved Federal rights and, remember, you are flowing water by the Pine Ridge Indian Reservation, the Standing Rock Indian Reservation, the parks and forests of the Black Hills, and those Federal reserve water rights need to be remembered and taken into consideration.

I have only addressed this very briefly and I am not going to talk about it, but to remind you that in fact as you are considering the use of water you need to consider that the Federal Government has over and above the State appropriation rights a reserved Federal right that it has reserved for itself and there are many cases that indicate that.

Incidently, Dr. Perry Rahn has a little different concept. He says:

> Let's put our dams over the top of the streams in the Black Hills where we are over the sink holes and recharge the water aquifers with the water going down through sink holes into the Black Hills and thus recharge the water formations.

I think that probably the better concept is to try to keep the surface water up at higher elevations. Incidently, the water resources and the coal resources in our region are unique. The eyes of the Nation are on this particular area.

I really think that it is saleable to have a program that is individualized toward the eastern slope of the Big Horns or western slope of the Black Hills for water development only in this particular area for purposes of looking at industrial uses. I think that those dams could be built by the Federal Government with Federal dollars and the private uses would be looking to the water for purposes of buying the water from the Federal Government in the impoundments.

Senator **Abdnor**. Thank you.

Do you want to sum up, Jack?

STATEMENT OF HON. JACK MANKE, SOUTH DAKOTA STATE SENATE

Senator **Manke**. Thank you, Senators. I, too, am very pleased to have this opportunity to come here and testify I would like to localize what I have to say.

I operate right today the ranch I was born and raised on. When I was a kid down there on this same place our main stream through the ranch was Plum Creek which was at that point a flowing stream. There were other streams in the area such as Hat Creek and the Cheyenne River is on the north edge of the ranch, and many other little steams like this. Those steams have gone from the point that they used to run year around down to either completely dry draws or streams that just have little spring holes in them. This is without any industrial use of these waters.

The undergound waters, all the hydrologists in the area will agree that the upper aquifers are charged from the Madison aquifer. So, I think that it only stands to reason if we lower the Madison formation waters we are going to lower or take away completely the upper aquifers which, like I say, has happened just by the natural domestic and agricultural use of these waters.

I am not opposed to the ETSI pipline whatsoever, but I am certainly opposed to the use of the Madison water. The number one thing, the Madison is the last water that we have in this area. If you could go below it and get another aquifer, great. But, below the Madison formation I can't tell you the depths, but below it is granite and how far that goes, nobody knows that I know of.

In the EIS I was very much displeased with several things in it. The number one thing I couldn't see any place in it especially addressing people, agriculture or livestock. It does mention agriculture but possibly mentions it in irrigation. But now you can see, like, on page 2 and 3 of that they talk about 100 foot of drawdown in a 3,400 square mile area. Well, out there that 3,400 miles is going to take in an awful lot of people, an awful lot of livestock, very little irrigation except the oil irrigation system down there.

Senator Abdnor. Do they take water for irrigation from the Madison?

Senator Manke. No, but then, your streams, you see, they readily say in the EIS that it will affect the Cascade Springs, Hot Springs, and the Cheyenne River. Well, the Cheyenne River is the oil project irrigation, Cascade Springs irrigates several hundred acres of land out there, and then, of course, all the wild life and stock water use that comes from there.

Another thing is we have an 18,000-head feedlot out there that is dependent upon the Madison formation and the Cheyenne River for its water supply. The hydrologists will tell you that the upper aquifer, as I said before, is fed by the Madison formation.

On my particular ranch I have five wells in the Lakota formation. When I drill down 200 feet I hit 30 to 40 foot of Lakota sand and that's exactly the amount of feet of water that I have in those wells. In other words, there is no pressure at all down there to push that water up even 1 foot in the hole.

I developed a well just a year ago and I hit the Madison or the Lakota formation and I had 40 foot of sand, 41 foot, something like that, and that's exactly the amount of water I had. It is adequate for all the livestock usage you can get. We stuck a pump in it and there is no problem with the water.

Now, let's take lowering of the Madison by 100 feet. Let's take lowering the Madison by 40 feet. It would stand reasonable to me——

Senator Abdnor. How far do you have to go down to hit the Madison?

Senator Manke. After that Lakota then I have to go 2,500 feet more to hit the Madison.

In drawing that upper aquifer—there are a lot of ranchers over in the Western United States, I mean, southwestern South Dakota, down in there and they all have the little upper aquifers and all hydrologists agree that it is charged from the Madison. The only source of water that can be. Whenever that source is lowered it is bound to take away the water and who can afford, a little rancher, to drill a 2,500 foot well and pipe it? It would be 3,000 feet down, basically, to the Madison, and then pipe it all over.

Another thing, I think that we are playing too many unknowns to even think of using Madison water.

I am going to quote a little bit from the EIS, but the use of Madison water now where it will affect other wells in the Madison, I have only one thing that I can put my finger on: In 1970 they started a feedlot at Igloo at the old ordinance depot out here. When they put that into being they had, like, 20,000 head of cattle, 15,000 head of sheep, and several thousand head of pigs out there. This morning I heard the actual number is 15,000. Then there were a few people living there to operate this; there were people in the town of Provo which is probably 50 more people, and when they start pumping 500,000 gallons of water a day at the peak of that operation out there it took the head pressure in one monitored well in Edgemont—this is the Edgemont water source—it took the head pressure down from 86 p.s.i. to 79 p.s.i. These wells are 8 miles apart. The Igloo wells are 8 miles south of the Edgemont wells.

Now, we are talking about a field that will be 8 to 10 miles off to the west of the Igloo wells producing 30 times this much water, so you might say in 1 or 2 years if the effect from the Igloo wells had this effect on the Edgemont wells, now, let's multiply that by 30 times over here if they would start the Madison formation ETSI well field.

This would be, if you get the picture, kind of a triangle. You see, the Igloo wells would be 8 miles south of Edgemont. These wells would be 8 miles to the west, so it is all right in that area.

I want to read just a little bit from page 8 of the final EIS, the second paragraph on wildlife, "The lack of available specific data precludes developing quantified predictions of impact as a result of changed flows. Some impact may occur, but because of the adaptability of the species involved and the high rainfall experienced by the area, it is not felt that this would be a significant impact."

The high rainfall they are talking about, I checked and it is 13.7 per year in Edgemont. That's a 30-year record. If that is high rainfall, I really don't care to get into the low rainfall.

Again, there is nothing about what it is going to do about the people, or livestock, and I have a lot of reservations about the final EIS.

On page 9, the second paragraph:

> Reduction in spring and stream flow in South Dakota as a result of the use of the Madison Formation water could significantly affect the aquatic resources of the Black Hills Region. The magnitude of the impact cannot be determined with available data.

How on Earth can we get into our only resource of groundwater without available data, without the knowledge of what it is going to do?

On page 9—I know you probably have read this, but I think it is very significant for this area.

> During project operation the primary agricultural concern is the potential impact on irrigated croplands as a result of possible reduction in spring, stream and well flows. Without specific case by case analysis it is impossible to predict exact impacts that may occur on the agricultural sector.

So, again they are saying we don't know what's going to happen, but we are going to pump her out; if it's bad, it's bad; boys, that's it.

In the EIS all the drawdowns are estimated by models. Hydrologists are estimating a drawdown over the pumping period from 300 to 2,800 feet. I have heard all those figures. I have heard that there is a billion acre-feet of water in the Madison substantiated by absolutely nothing that I can find. I have heard that the recharge is 400,000 acre-feet a year, substantiated by absolutely nothing that I know of.

Now, the reduction in the spring and stream flow and the effect on people, agriculture, wildlife and tourism, I just don't feel that we can gamble with this water because even though there are contracts made by Wyoming and offered to the city of Edgemont that we will compensate you for the loss of this water if it occurs, and money does not replace water.

I thank all of you.

Senator ABDNOR. We thank you for that excellent testimony. I think you are aware that I will prevail upon the BLM to give another 30 days to study that statement. I want you to know that everything, every statement, every sentence said here today will be turned over the BLM.

Unfortunately time is going quickly, but do you think the State legislature would approve water rights for the ETSI program?

Senator HOGEN. I am satisfied they would. I have been involved several times when they wouldn't, and I feel a complete turn around in the attitude there. If it were legal, why, I'd have few odds that it could pass the legislature.

Senator, there is one concluding thing I would like to say. I would just like to remind the Senators that none of the things that any of the five of us said referred to irrigation or large industrial use. There is only two things that we talk about and that's water for cattle, livestock, and people to drink.

I want to repeat that it isn't irrigation or large industrial development that we are concerned about. We just want a little drinking water.

Senator DOMENICI. I don't understand the nature of your question: Would the State grant water rights?

Representative HAMM. I was chairman of the West River Aqueduct task force 2 years ago and we had a bill 4 years ago actually which was vetoed by the then Governor, and we couldn't override it in the senate. We were one vote short in the senate to give a water right to ETSI out of the Missouri River. So, we lost that and, of course, that's been the alternative that we have tried to present to Wyoming, to the Wyoming Legislature, but, of course, their question is: Why don't you do something? So, Senator Abdnor's question was: Do we think there is a better possibility now? And I agree with Senator Hogen, there is.

I think the legislators in South Dakota are much more sensitive today to the potential problems of the drawdown of the Madison than they were at that time.

Senator DOMENICI. I was going to say, Mr. Chairman, this is difficult for me to understand from the standpoint of conflicting rights. Obviously I am not from here, but I wonder, will someone today or can someone supply for the record an analysis of the water rights between the two States? For instance, how can Wyoming just unilaterally as a State grant permits that permit this big a drawdown that has an effect on adjoining States?

In my State we have a much different situation, as some of you know. We have underground basins which are adjudicated and the water rights are already closed basins. The Ogallala is a closed basin in New Mexico and everyone's right is already determined in that aquifer and you won't drill another industrial well because there is no water left.

Senator ABDNOR. I think our next witness will address that. Mr. Neufeld.

Senator MANKE. Also State Representative Marlene Simmons from Wyoming is here so she may be able to address some questions.

Senator ABDNOR. Our next witness is Bob Neufeld, director of the water and natural resources of the State of South Dakota.

Among other things maybe you will address your views on this bill of mine, South Dakota bill No. 1095.

STATEMENT OF WARREN R. NEUFELD, SECRETARY, SOUTH DAKOTA DEPARTMENT OF WATER AND NATURAL RESOURCES

Mr. NEUFELD. Mr. Chairman, I have 25 copies of my prepared statement.

I did come prepared to discuss 621 and 1095 today.

I was going to reserve my comments regarding ETSI or the Gregory Pumped Storage Unit for my boss, the Governor, this afternoon. As you know, he is a little more eloquent than I on those subjects and I thought I would leave him the opportunity, but in response to Senator Domenici's question of water, my hydrologists tell me that we are not in a situation with the ETSI permit or well field in Wyoming of exceeding the average annual recharge of the aquifer.

What we are talking about is reducing the head pressure in artisan conditions, and in that situation any type of a large withdrawal will have a widespread effect over a large area of a drastic nature. We maintain along with Wyoming the same type of situation that I believe New Mexico probably does and we maintain tight control on the amount of water that can be withdrawn from an aquifer based on an average annual recharge basis. We have antimining statutes in both States, but that's not the issue here. It is a separate issue.

It is a question of what's going to happen to the pressurized system, naturally pressurized system there when they put a large hole in it and release the pressure?

Senator ABDNOR. South Dakota has no control over Wyoming giving water rights, is that so?

Mr. NEUFELD. Interstate conflicts in ground water is a largely undeveloped area of the law, just almost totally undeveloped. Most of the water laws that I know that address the subject tend to approach it from the basis that you want an interstate stream and that is at the first State that gets the water and diverts it is the one that has the right to it.

If a downstream State wants the water they better take it out first.

Senator DOMENICI. You are saying that, as far as the surface water versus the ground water, in a majority of the States, there is a big difference in the adjudicated rights? Not so in my State. That's where the difference is. Almost every ground water inventory is part of the surface water system and adjudicated as part of the same so we must have necessarily a different situation.

Mr. NEUFELD. No. We recognize the interconnection and I think both Wyoming and South Dakota recognize the interconnection between ground water and surface water.

I am not sure exactly how advanced your system is in New Mexico, but we are in the process of developing a hydrological study necessary to say that, for instance, if a well were to be drilled 100 feet from Rapid Creek here today, what effect would that have on the streamflow in Rapid City 5 years from now? We have not developed that technology or applied it on as broad a scale as you have in New Mexico.

Senator DOMENICI. Mr. Chairman, I don't want to use all his time. He wants to talk about your bill, 1095 and the new concept. Let me ask a couple more questions.

There was discussion about going the route of using Missouri water and it was spoken of very generally, and excuse me for being ignorant on the subject, but I don't understand the significance of it in terms of size and type of a project.

Is the project that's being discussed from Missouri use in terms of scope, is it reasonably related to the expenditures on the Missouri and the profits that can be derived? Are we talking about 100 to 1 ratio?

Mr. NEUFELD. That's a very difficult question to answer, Senator. ETSI in my mind is starting up a new industry in the coal slurry business, not just a new project, a new industry, and they are very secretive about what their projected financial statements are. We have negotiated within 20 years ago trying to get them to come to the Missouri River and find out their financial capability to sustain that kind of diversion. They won't tell us and it is going to be very difficult and I doubt that we will be able to find out anything about that until we get them in court and start some discovery techniques.

But, it is our feeling that based upon what we think it is going to cost to develop a wellfield in Niobrara County, Wyo., a pipeline in Niobrara County up to the slurry plant, that the cost of a WET system waste water effluent system from the Black Hills would probably be cheaper and the cost from the Missouri pipeline would probably not be that much more, and certainly within the ability of the slurry lines to pay it, especially if you look at it as a basis of how competitive shipping over railroads will increase over the years because their fixed costs are a much larger covering of the operating costs than the railroads.

Senator DOMENICI. Would you have the cost benefit approach? You would have to add in the ancillary uses discussed here, other communities would draw on it, so there would be expected to be some reimbursement if we had one overall project?

Mr. NEUFELD. You bet. I don't think any of the communities are looking for a totally free ride on this thing. Certainly we have never postured ourselves with ETSI in that regard. I don't think they are in a position to afford the entire cost of diversion from the Missouri River. We feel, I think the broader issue with respect to ETSI—assuming they can afford it—is that there is going to be a very large demand, not an inexhaustable demand, but a very large demand for water for energy development in Wyoming. The amount of water that can be produced from the Madison formation is in fact limited. ETSI may not be exceeding the annual recharge, but the next project very well may be.

We feel that if the Missouri River diversion is initiated that there will be other projects that will expand the economic sale on that thing and before we get the design done there will be other customers at the end of that pipeline. We don't see that it is going to dry up the river. In fact, if we could satisfy all the energy demands in Wyoming it is less than 1 percent of the flow of the Missouri River.

We think it is a limited market. We would like to capture it and we think it could make a profit for the State to finance other water development in South Dakota. We just need to get the first customer willing to make that commitment and we think we will be over the hill.

Senator DOMENICI. Thank you.

Senator ABDNOR. Bob, we will go to your views on 1095 and the need for State planning funds.

Mr. NEUFELD. Mr. Chairman, it is a pleasure to be here today. I always look forward to testifying in front of your committee. The last time I was there was in Washington several months ago.

My experience as a natural resource manager for the State of South Dakota—and for Senator Domenici's benefit I have managed not only water resources but I am in charge of the water quality control program for the State, surface mine control program for the State, and air quality and solid waste programs for the State.

Natural resource management is to me on a national viewpoint a very increasingly important issue. I think the Arab oil embargo shows that we are increasingly dependent on foreign sources.

Representative Santini has brought forth issues of dependency on foreign sources for critical materials necessary for industrial development. But, to me water is really the most important resource of all. It is basic to the development of the other resources. We can't develop coal, you can't develop synthetic fuels, you can't develop the mines that are necessary to develop these other resources, but most important of all to me water is an irreplaceable resource.

We have got the possibility of developing synfuels to replace oils and gas, and plastics are replacing some very important metals, but nowhere anywhere have I ever read about the emergence of a synwater industry. There's no place that water can be replaced with anything else.

Senator DOMENICI. The closest thing to it is brackish water.

Mr. NEUFELD. And it is still water.

So, in my mind it is a resource that has to be managed in a realistic concept. The water that I may use to irrigate my crops today may seep down through the soils and emerge in the streams through ground water percolation and become municipal water someplace down the road.

Water is important for more than economic reasons, too. We drink it, we recreate with it, and it is important that we reserve and manage it wisely. I think everybody will agree on those sorts of statements that that's what to do, and determining how to do it is another matter.

When you are dealing with governmental management of resources, I see two levels here: A Federal policy and a State policy. Over the past years I have found that Federal policy development in the water resources issue has been a very disjointed and uncoordinated state of affairs. If I had any preference I would like to see the entire EPA construction process, the Bureau of Reclamation irrigation process, the Corps of Engineers process all rolled into one and directed on a priority basis as each individual State would see best as long as Federal Government is going to be involved in it.

Senator DOMENICI. That's great.

Senator ABDNOR. I am glad to hear that.

Senator DOMENICI. Join us in the Senate and see how hard that would be.

Mr. NEUFELD. I recognize the separate jurisdictions that have developed over those issues and it is going to be very hard to integrate them. I do feel, however, that Senator bill 1095 is a step in that direction. It provides a coordinated—I hope it would provide a coordinated effort at the Federal level.

We haven't experienced this situation in South Dakota, but several of our western States that are neighbors have found cases where Federal permitting requirements on, say, section 404 permits from the Corps of Engineers have interfered with water rights allocations that depended on some other sort of involvement in the construction of the project. Those types of things ought to be avoided. We don't need to hear conflicting things from one Federal agency that's going to interfere with what another Federal agency proposes. I recognize that when the statutes are passed Congress assumes, hopes all those statutes are going to be consistent with each other and applied consistently. The fact is that just rarely happens.

It is my feeling that when the Fish and Wildlife Service, or EPA, or Bureau of Reclamation, Soil and Conseration Service, Corps of Engineers develops a policy that there ought to be some sort of higher level review, a national water policy board, if you will, that says, "OK, what effect is this going to have on this other Federal interest that we have dictated by statute that has to be applied?"

It seems to me that those types of things ought to happen. I think that's an entirely different issue, an independent project review. Policy development ought to be coordinated at the top of the Federal level. I think there is a possibility for that happening in Senate bill 1095.

I also feel that the State advisory commission will provide a good input for State coordination on that and the river basin commissions provide a mechanism for communication.

With respect to State planning grants, we have just recently seen an increase in those funds at the State. I have approximately 17 positions for water resource planning and development in my department and 50 percent of those jobs in the Federal planning grants from the Federal Government were to be taken out.

In the meeting yesterday, Senator Abdnor, I think you saw the kind of apprehensive planning and issue development that those people are capable of producing and I am really quite proud of the work they have been able to do.

If, as a Federal policy, this Federal Government is going to be handling more and more responsibility to the States for water policy development and review, I think it would be a good investment for not very much money to be sure that State planning procedures meet some minimum level of competency by providing State planning grants. One problem I do have with the Senate bill 1095, in all due respect to the Senator and his bill, I have problems with river basin commissions setting priorities of any type, not that I don't think regional priorities should be set; I don't think politically the system will work. We tried that with the Missouri River Basin Commission and what happens is a commission sets its priorities for Federal development in a river basin and the Governor of a particular State says, "I will be darned if I am going to let some regional people tell me what is going to happen in my State," and Congress says the same thing, and the river basin commission priorities are ignored.

Senator **Domenici**. Isn't there something in the Abdnor bill that a river basin setup would be a voluntary one? States dont have to join it if they don't want to and if they do they pay some money for the privilege of being regionalized? Can that possibly change the end product?

Mr. **Neufeld**. Well, the charge to the river basin commission no matter how they are organized in 1095 is still to set priorities for data aquisition for water development projects. I think that's an exercise in futility no matter how many States are in the river basin committee.

Senator **Abdnor**. Bill 1095 states that these basins could arrange it so that they selected their priorities from a list of studies or have a little more input on what they are studying.

Mr. **Neufeld**. I believe there are regional issues that need to be attacked from a regional viewpoint. The basic viewpoint in the Missouri River Basin Commission, we are worried about how much water is necessary for downstream navigation, can that create a conflict with our project uses for irrigation, energy development, and industrial use in the upper basin? Nobody that I know has really done the work or has completed the work that will say that if we irrigate 2 million acres in South Dakota that's going to mean 15 percent less barge traffic or capacity, and those are just examples. I am not quoting that as a fact. Nobody has done that work to try and identify those issues and do the long-range planning necessary to allow the Governors to work out compromises and to allow Congress to work out compromises.

I think that's the kind of thing the river basin commission ought to be doing, the long-range issue analysis and identification.

Senator **Abdnor**. Couldn't we somehow structure these basins to merge out of a group of States?

Mr. **Neufeld**. Sure. And, as a matter of fact, at the last meeting of the Missouri River Basin Commission, the group voted to abolish itself and form into a nonprofit corporation and transfer the assets of the corporation to that corporation to continue on with a hydrology accounting system for the entire Mssouri River Basin that will answer the kind of questions we hope that we are talking about.

Senator **Abdnor**. You really do believe that's how to get the greatest maximum use of it?

Mr. **Neufeld**. Absolutely. If we get into the priority system use nobody is going to listen to them and one other issue I would like to address with the 1095 and the Federal-State relationships, is that I strongly believe that Federal budgets for Federal agencies as they are developed for interstate work ought to have their basis with a meeting each year with the State agency that's involved in water resource development. We started this with the Bureau of Reclamation in South Dakota and it has worked very well. We hope to get the Corps of Engineers to do it. We spent a lot of money on water, Federal water studies in the State of South Dakota. Not many of them have evolved into anything largely because, it is my feeling, that the Federal agency came in, said, "Well, this is what we think the State wants," and the State agencies did not have the adequate staff to say, "Well, we don't really know if this is what we want or not," and the plans went on and they were just put on a shelf.

If there were some State involvement, some State direction as to the way the water planning——

Senator **Abdnor**. You believe all the States could establish their own priorities?

Mr. **Neufeld**. You bet. Shortly before my last testimony in front of this committee I attended a meeting of a national Governors' association. At that meeting we were talking about—in fact, we had the fact sheet from your bill last time, Senator Domenici, where it talked about the amount of money States got before and the amount of money afterward from the allocation process and one of the States there had received a tremendous amount of money in Federal water development and studies, and the representative from that State said, "You know, about half of those are things that we felt were really important and the rest of them were things that representatives in Congress from our State had managed to stick in budgets in order to satisfy their own constituents but didn't really go a long ways to satisfying water development."

I think the Reagan administration's proposal to look to the Governors and the legislative bodies of each State for setting priorities in water development is a wise one.

Senator **Abdnor**. If we cut off those plannings grants, that could be a problem.

Mr. **Neufeld**. You bet it would be a wise investment to maintain some minimum compensation at the State level.

I have a few words about S. 621. I like the block grant approach. I have read Dr. Caulfield's proposed testimony here and I would disagree with him. He makes a statement that most States would probably approach the 25-percent level of cost sharing. It seems to me that the reason for the Federal Government's involvement in water resources and its development in the Nation is an economic development concept. We are trying to stabilize the economy of the various States either through flood control or through increased irrigation production. I think the cost-sharing requirement ought to be graduated based on some concept of the State's ability to pay either a per capita income gauge or something of that nature.

It is clear South Dakota is not in the same position to meet the 25-percent cost sharing as Wyoming is. Some of these States around us are close to $1 billion surplus in their treasuries. That's five times as much as we can produce in annual tax revenues every year.

Senator Abdnor has told the story before that the fact that a great deal of our agricultural stability was robbed was when we flooded 5,000 acres due to a national program on the Missouri River. The compensation due the State has never come about and, Senator Abdnor, you can tell the story better than I can. But, we feel our ability to cost share has been robbed because of the past; what the Federal Government has never compensated for.

Senator DOMENICI. I have only been around him 4 months and I have heard the story four times.

Mr. NEUFELD. It is a good one and a true one and I never get tired of hearing it.

That concludes my remarks.

Senator ABDNOR. Thank you. I wanted Senator Domenici to hear from you because you are one of the real experts in the field.

Senator DOMENICI. Do you handle the wastewater treatment program, too?

Mr. NEUFELD. Yes, sir.

Senator DOMENICI. Have you commented on the administration's bill, the Chafee bill with reference to the new program?

Mr. NEUFELD. Yes, sir; I have.

Senator DOMENICI. Does the committee know your view? Have you spoken to them already?

Mr. NEUFELD. Yes. We had one of our staff members out testifying in front of the committee.

Senator DOMENICI. We will look at it. That's going to be marked up.

Senator ABDNOR. Summarize it.

Mr. NEUFELD. Our basic position is South Dakota has always been one of those minimal grant States and we have accomplished a great deal. We have always gotten one-half of 1 percent of the allocation. We have done a great deal of that.

Our compliance right now is 94-percent of all the treatment plants we have built in the State are in compliance. We are proud of it. We have come up with some very innovative techniques.

Part of the 208 funds which aren't involved in construction grants were used to develop the WET system which could provide, instead of building expensive treatment plants, could provide that wastewater effluent.

Our basic concern is we maintain that one-half of 1 percent. We think we can maintain our goals in the water development with that half percent.

Senator DOMENICI. That was going to be my next question. You have a good allocation and have been able to do a good job because of the one-half of 1 percent.

Mr. NEUFELD. Right.

Senator **Domenici**. I think Senator Abdnor will join me in trying to retain this even if it is a one-year bill that the administration recommends. Their position, so you will know, is that one year and the years thereafter are aimed at a specific set of needs that would be frozen and we would then have a program for as long as it takes to get those cleanup needs solved. That sounds great. I think it is a dream. So, I would prefer to proceed on the basis we are never going to get there but we are making strides and we ought to keep our half percent and have flexibility.

Mr. **Neufeld**. I have a very difficult time with allocating resources from the Federal Government on a needs' basis because it is a very subjective determination. We have tried that in past water quality programs and one reason that President Reagan decided to do away with funding for EPA is because it resulted in a series of grants because they were able to describe needs better; one person was able to do that better than the next.

Senator **Domenici**. Going back to water project development, I think you are familiar with the fact that we have done it rather ad hoc, as you have explained, and over the last 4 years the national program has been stymied by big conflicts between the legislative and executive, but even aside from that if you look at the history of water funding, Corps of Engineers, Bureau of Reclamation, the principal ones in real dollars, the funding level has been going down dramatically. And the time it takes to get a project done has been going up dramatically.

If we don't do something like 621, some kind of plan with the States putting up some money and picking priorities, how can we speed up the process?

Mr. **Neufeld**. I think one reason—for a 17-year time frame—has been not only the environmental restrictions, sometimes I think that's a whipping boy for a lot of people, but it's been an input of the Federal Government to coordinate those requirements among themselves and recognize Congress before they arise. I think 1095 tries to approach that problem.

Another reason—with all due respects to the U.S. Congress—is the continuing jurisdiction that Congress maintain over individual water projects. I recognize the popularity that it is going to have with a lot of constituencies when a Senator or Congressman can come home with this project pinned on his lapel, but when you have to fight for a study, then come back for specific authorization for a feasibility study, then appropriations for that, then authorization for construction, and then appropriations, that takes a lot of time and a lot of effort.

It seems to me the block grant approach in which the States identify what they want to do and then present the package for some sort of approval as a whole is one that could speed that up and I think that's contained pretty much in your bill. I don't see what else can be done.

I would have some refinement. I won't go into it, but I think the block grant approach is the way to go on the thing.

Senator **Domenici**. We could deauthorize scores of those that have been languishing for years. That would get rid of the fact that we have more projects than money by thirtyfold.

Mr. NEUFELD. It is my understanding, the Governor tells me, after his trips to Washington that it is really a water courtesy rather than deauthorization of a project. It is a standing rule that once it stands for 7 years nobody funds it rather than deauthorize and hand the insult back to the home State.

Senator ABDNOR. We will be deauthorizing a number of projects soon. You keep talking and you may end up by selling me on your bill.

Mr. NEUFELD. I am not completely sold on it, but I do believe the block grant approach is the way to go.

Senator DOMENICI. I didn't think anyone read the environmental impact statements. It is wonderful to see that someone at the local level is examining it rather carefully. I compliment you for it. I generally don't see constructive people that are very much involved. I think it is a compliment to you.

[A brief recess was taken.]

Senator ABDNOR. We will call the meeting to order.

Doctor, go ahead.

STATEMENT OF DR. HENRY P. CAULFIELD, JR., COLORADO STATE UNIVERSITY

Dr. CAULFIELD. Thank you, Mr. Chairman and Senator Domenici.

I am honored that you invited me here and I am happy to come from Fort Collins, Colo., to be with you today. I am a professor of political science at Colorado State University and one of the courses I teach is a graduate course in the politics of water resources planning and management.

I have been on the water board of the city of Fort Collins since I have been in Fort Collins, and a member of the Areawide Waste Treatment Advisory Committee, section 208 of the Clean Water Act for the Larimer-Weld Council of Governments for much of the time also.

But, I believe part of my career that you are interested mostly in is my prior Federal career in which I was the first Director of the U.S. Water Resources Council from April 1966 to August 1969, and prior to that time I was involved with the Water Resources Planning Act from its earliest conception within the executive branch starting in 1961 through to its passage by the Congress in 1965. I was also chairman of the Interdepartmental Staff Committee, which was then called the ad hoc Water Resources Council created by President Kennedy in October 1961, so I was involved for over 8 years at the policy level in this area which you are concerned through August 1969.

I have a statement, as you know, that covers both my general comments on 1095 as well as S. 621 and I realize the time limits that I have, so I will just briefly outline some of my remarks and then some of you may want to go back into that more carefully.

With respect to 1095 I will confine my remarks to the proposed national water policy board and then proposed office of water programs, and to the basic thrust of the bill, the direction of the bill as I see it, increased State responsibility.

Particularly I want to say more in detail about the national water policy board because I believe that is one of the areas you want to hear from me most about.

Senator **Abdnor.** Yes.

Dr. **Caulfield.** So, I will read that section of my paper and we can go ahead on that.

In its consideration of the membership and functions of the proposed board, the subcommittee needs to be reminded that, historically, boards, councils, and interagency committees are alternative means to reorganization in order to achieve greater program coordination and unified policy direction. Thus, in choosing the alternative of a board composed largely or wholly of the heads of agencies involved in water matters, a decision is really being made that both unification and apparent administrative chaos are undesirable. Something in between, a board, is desirable.

The water functions of member agencies of a board need to be viewed in varying degrees as competitive and as potentially complementary. Heads of agencies are in an institutional position where, more or less, they are forced to be competitive with other agency heads and conflicts of policy and organizational interests arise. Without the active coequal participation in affairs of a board by one whose job is to view knowledgeably the domain (here, water matters) as a whole, and to represent the general views of the President, resolution of conflict will be impeded and opportunities for complementary action will tend not to be realized. Initiative will be stymied.

Title I of the Water Resources Planning Act of 1965, which created the water resources council, did not provide for an independent chairman in the deliberations of the council. Instead, successive Presidents assumed that the Secretary of the Interior could provide adequate and appropriate leadership. The only independent role was provided by the director of the council's staff. If the relationship between the director and the Secretary is close, and, in his role as chairman, the Secretary has confidence in the advice of the director (as was largely the case between Secretary Udall and me), then the council could function reasonably well, except with respect to conflicts with the Bureau of the Budget (now Office of Management and Budget). My successors as director were not so fortunate as I. None were close to the successive Secretaries of the Interior, despite the fact that they were members of the administration as schedule C officials, G.S. 18. They were politically appointed people. They were considered of the administration. Nonetheless, none of them had a close relationship with the Secretary of the Interior as I had because of my prior development in the Department of Interior.

One of my successors overcame this problem by getting assistant secretaries to operate effectively as a council of alternate members. Moreover, they had great difficulty and generally little success in getting the chairman to call or attend council meetings. I think this is a very critical thing. If the staff looks into this, historically you will find it was very difficult for any meeting that the council called to get the chairman to attend the meeting. This is a very important point.

One of my successors overcame this problem by getting assistant secretaries to operate effectively as a council of alternate members. Toward the end of the Ford administration, I am informed, they reached agreement on the vexing, cost-sharing problem for recommendation to the Congress in response to section 80 of the Water Resources Development Act of 1974. But, this agreement was derailed by the Office of Management and Budget. No report was made to the Congress.

For much of the Carter administration, I am informed, water policy was largely determined by representatives of the Secretary of the Interior, of the Office of Management and Budget, and the Council on Environmental Quality. The institutional arrangements of the Water Resources Council and the role of its Director were largely bypassed.

An independent chairman of a national board on water policy appointed by the President, with the advice and consent of the Senate, would overcome what proved to be a critical defect in title I of the Water Resources Planning Act of 1965. The independent chairman would be an official of stature equal to the members who are agency heads, and he would have independent access to the President and top officials of the executive office of the President. When he called a meeting where their agency interests were involved, they would not fail to attend. I think this is a very critical point.

Now, with respect to the office of water programs I would like to say that I question seriously whether the particular functions you give to that office are appropriate because the staff of the agency takes on the coloration, the policy of the institutional setting of that agency. It does not develop the critical overall point of view which I think is needed in a staff to look at the whole of our complex, Federal water program. The specific functions that are assigned by the bill, it seems to me, like, the national water assessment, the planning grants to the States and the research function are all functions that require a staff which is looking at the whole water picture, not just the water picture as viewed from the Department of the Interior and being a staff subordinate to an assistant secretary for land and water it will take on the views of that part of the department in which, incidentally, the Assistant Secretary's primary role, in many respects these days, is supervising the Bureau of Land Management.

Senator ABDNOR. They do have a man in there who handles nothing but water.

Dr. CAULFIELD. I believe, sir, you will find that Donald Caruthers is land and water and the Bureau of Land Management reports to him as well as the Bureau of Reclamation, and the Geological Survey comes under a different assistant secretary. This is the structure of the department.

Now, don't misunderstand me, sir. I am not casting any doubt upon the ability of Dr. Caruthers. It is a question of insitutional settings that are involved here.

The staff takes on the coloration of the department. The staff does not necessarily think in terms of the total program when it is in a department, whereas if the staff reported to a board that had the obligation to look at the total program with respect to national assessments, with respect to planning grants, with respect to the needs for water research, I think it would have a more general point of view, an overall point of view and would not be within the Department of the Interior.

I might say, sir, I could give you and your staff some material from a report I was associated with on water research of the National Academy of Science and we were asked to comment as a committee of the National Academy of Science on the water research program and we were asked to comment on a report prepared by the Office of Water Research and Technology. I have never seen such a poor piece of staff work, a completely unimaginative, terrible—I am using stronger words than we used in our report—work being done and this is a group that reports to the Assistant Secretary for Water and Land Management. They can't get the direction and the attention of a top official which the independent chairman would be of a board to really develop the program, and then the independent chairman would be in a position to get the material from the Corps of Engineers, the Department of Agriculture, the EPA, and other agencies whereas the director of a staff group cannot go around rounding up material very well from other agencies of the Government. I can assure you from long experience—I have 23 years total with the Federal Government—of that point.

Senator **Abdnor**. I don't want to press you, but we have just got to move along.

Dr. **Caulfield**. Let me just say in point to S. 621, I think S. 621 is a very substantial improvement over the previous Domenici-Moynihan bill getting rid of the concept of demonstration and coming to grips with the total program. My only problem with it is in regard to your basic premise noted on page 6 of my statement, Senator. One of the premises is that the professional talent of the Army Corps of Engineers, the Bureau of Reclamation, and the Soil Conversation Service are still required by the Nation to plan intrastate projects. You still provide for that staffing of intrastate water projects, that the States and local governments are now incapable of taking primary responsiblity, financial responsibility for such intrastate water development projects as will be needed in the future and, as I view the future, that as far as intrastate projects are concerned it is largely municipal industrial water supply water projects and, second—this you don't address—the combining Federal policy and programs with respect to water quality enhancement and water resource development at the intrastate level is undesirable or too difficult an undertaking at this time. You leave this out of this bill.

Now, I gather from certain remarks you have already made, sir, that you are in sympathy with trying to move these two programs together and it is possibly being handled in other legislation, but as far as this bill is concerned you aren't addressing that problem.

Now, I have given reasons for this in my paper, but I think——

Senator **Abdnor**. We will put that on the record, I assure you of that.

Senator **Domenici**. I gather, then, that you are saying that while the system of using the Secretary of the Interior during the Kennedy and Johnson administrations worked, in your opinion, and obvously since you were directly involved, I wouldn't expect you to say it did not work, and I'm not saying that it did or didn't, but you are saying that we ought to go with the idea of having an independent chairman directly responsible to the President because we can't get the myriad of officials in the Federal Government to respond because of their own interests and the diversity of problems they are solving every day?

Dr. CAULFIELD. That is correct. Just to show you I object about the situation of Mr. Udall. It wasn't easy for me to get Stewart Udall to come to meetings and be chairman and be briefed about the generality of issues facing the total picture of water subjects. If it hadn't been for the fact that I worked with him so closely for so long, I would not have been able to do so and he was a man who was heavily involved, as you suggest, a very busy man, like all Cabinet officers, and all Senators are, and Congressmen, and it is very difficult to get the time to get these things done, and particularly when your main focus is on other matters, when water interests aren't your primary concern, it is just one of your concerns, it is very difficult to get any Cabinet officer—I am not speaking particularly of Secretaries of Interior—to function in the field as complex as this, as important as this, that involves so many different water functions and so many different agencies.

Senator DOMENICI. Those of us who support the Abdnor bill have different reasons. Some may not want Jim Watt in charge of the whole show as the subcommittee group meets. I don't particularly support this bill because of that. I just don't believe that having a Cabinet-level group with four or five Cabinet members and something like the Corps of Engineers civilian head, I don't think they will continue for a long enough period of time to enthusiastically sit down on a regular basis with competent staff and develop a policy. I think right now they say they will and they are right now, but that's the enthusiasm of their new membership on a significant board called a Cabinet of the President, but pretty soon that's going to wear off and it would appear to me we have got to find some way to institutionalize it.

Dr. CAULFIELD. With due respect to Secretary Watt, who I happen to know from the 1960's when he was in Washington—at that time slightly—Mr. Watt has already stated that his primary interest as Secretary of the Interior is going to be with respect to nonfuel and fuel mineral security of the United States. That's his primary interest; not water. That's going to be a very difficult topic for the Congress and for Mr. Watt to pursue in the next several years. This is a so important point and has no reflection on Mr. Watt.

Senator ABDNOR. For purposes of the bill, my purpose is the same as Senator Domenici's. I think Secretary Watt does a fine job. We think we need an established policy here and that's the way to go about it.

Dr. CAULFIELD. You also need, sir, a statutory institution. You need a statutory institution for the person who Congress will hold to be a responsible person appointed by the President with advice and consent of the Senate where the Congress can look to him as accountable, and his position to be really accountable, not in some offhand way, accountable like a person who has got more complex responsibility.

Senator ABDNOR. Thank you, Doctor, and we may be submitting questions to you and ask you to answer them in writing if we so desire. We will keep the record open for another couple of weeks so we could do this if we need to. Think you very much for coming.

I am going to revise the witness list for just a second and ask the gentleman to come forward with the Gregory Pumped Storage Project, Jeff Nelson.

STATEMENT OF JEFFREY L. NELSON, EAST RIVER ELECTRIC POWER COOPERATIVE

Mr. **Nelson**. Thank you. For the record, I am Jeff Nelson and I am representing East River Electric Association today in a joint statement for the South Dakota Rural Electric Association which is managed by Tom Fennel, as well as Rushmore Electric Power Cooperative which is managed by Harvey Malon, who is also in the audience today.

The purpose of our statement is to once again, Senator Abdnor, as you well know reiterate or support for and ask for the authorization of the Gregory County Pumped Storage Unit. It is a 1,180,000-kilowatt hydroelectric unit that would increase the existing power producing capacity of the Missouri River Hydroelectric System by 58 percent. The output of that project will be distributed in no less than a six-State region that has a demonstrated and growing requirement for electric power.

The Corps of Engineers initiated studies on this, 12 years ago, in 1969. They have completed and invested a great deal of time in the environmental safety and economic aspect, all of which has been satisfied.

The project probably is most important to this country in terms of the oil that it would displace that is presently being used to generate electric power. Six million barrels, based upon the Department of Energy's calculations, at $30 a barrel, of course, is $180 million alone. It is an integral part, we believe, of the Missouri River mainstem in that its operation depends upon Lake Francis Case which is behind Fort Randall. We support the water-flow aspect of this project of which you will hear more shortly.

I would like to just very briefly, Senator, point out to you that our—and when I say, "our" I mean really collectively the present customers that hopefully can purchase the output of this project to not support a block grant funding of a project like this. We don't support that in that this project, like many others that have commendable outputs can be supported from revenues that are generated as a result of the kilowatt hours in this case that would be sold and in the case of another project, of course, water would generate some of those revenues.

Senator **Abdnor**. How many States would share?

Mr. **Nelson**. Six States, sir. This also raises a very significant problem in trying to fit a project such as this into the concepts of the cost sharing proposed previously in Congress that would require States to approve and provide some of the front-end moneys for this. It becomes very difficult to adjudicate priorities as you have heard from Bob Neufeld and I don't see how that happens in a six-State program for a project like this.

Senator **Abdnor**. Just real quickly summarize what this problem is because I think it is completely foreign to Senator Domenici.

Mr. NELSON. This project if constructed by the Corps of Engineers would have the output marketed by the Federal Power Marketing Agency that presently distributes the power that is generated on the Missouri River mainstem system. The marketing area that is considered for this region includes six States. It is really a testimony to joint, local, Federal participation in that many of the coal-fired plants in this region supplement the operation of the hydrosystem through contracts and provide the energy that's not available in the river when the water is not available.

The Gregory project would provide peaking power that would do essentially the same thing and carry that concept one step further, and instead of just providing the base load that is available today, it would also provide the peaking.

The six State governments that are involved in this project is really beyond any understanding how they would directly be involved other than for those permitting requirements that they have, but in terms of the actual contractual obligations are not directly involved at all.

So, to have any sort of an approval process by their legislatures or Governors for method of funding really adds another step that makes it much more complicated than it has to be and really accomplishes nothing in terms of the overall project.

Is that an adequate explanation?

Senator DOMENICI. Surely. That's fine. I understand.

Mr. NELSON. I guess the basic philosophy of the block grant seems to be foreign to a project such as this. We stand willing to repay the outstanding Federal obligations that would be invested in this project just as we have been repaying since 1952 the Federal debt that's been invested in the existing mainstem system. I guess that I won't add anything further at this point.

This bill has been included in both the 1976 and 1978 Water Resources Act, to my knowledge, and I think Senator Abdnor will verify that there has been no controversy on this project. It is terribly frustrating for us to see a resource such as this that is part of the Pick-Sloan plan, another logical step, not being developed in the face of the tremendous benefits it offers, not only for this region but for the Nation as a whole as a result of its oil displacement.

So, thank you for letting me appear today, Senator Abdnor.

Senator ABDNOR. Thank you, Mr. Nelson.

The next witness is the former mayor of Gregory, S. Dak., a very astute lady, on the subject of water.

STATEMENT OF CATHY WERNKE, CHAIRMAN, BOARD OF DIRECTORS, GREGORY PUMPED STORAGE SITE WATER CORP.

CATHY WERNKE. I think before I start my statement I wasn't just sure how far he was going on the power, but I did have a map and I would like to look at the Forebay area of that map and I would like you to look at it and notice that it would be almost two sections that it would cover, and it is 1,240 acres that will be under water when they are pumping it up, and it will be 49 feet tall on the top.

Our biggest problem in Gregory County, S. Dak., for water development, of course, is the lift. As you can see it is 700 feet and every time we have ever gone for a water project they say that you can't lift water 700 feet. We see this as a golden opportunity to take the water after it is lifted.

I, Cathy Wernke, chairman of the board of directors of the Gregory County Pumped Storage Site Water Corp., speaking on behalf of the persons who will benefit from the multipurpose water projects that could obtain their water from the Gregory County Hydroelectric Power Facility Forebay proposed for construction near Lucas, S. Dak., have the following information to present to the subcommittee, to wit:

In 1978 a water supply concept study was done by the engineering firms of Bartlett & West of Mitchell, S. Dak., and Boyle of Lincoln, Nebr., and the findings of this study determined that projects for municipal, rural, domestic, livestock, irrigation, and industrial purposes were feasible to obtain their water supply from the pumped storage site.

Approximately 4,300 square miles in the five-county area of Gregory, Tripp, and Lyman Counties in South Dakota and Keya Paha and Boyd Counties in Nebraska, with a total population of 20,000 persons would be directly affected.

Although it has been 3 years since the study was done, there is still the same strong public support and interest in the Gregory County water projects as evidenced by certificates of support signed in December of 1980 by 2,000 concerned persons residing in the area surrounding this proposed project.

The study indicates that the municipal and industrial water plan could serve six towns along U.S. Highway 18 with a total combined population of 7,131 for an approximate cost of $11 per 5,000 gallons of water, and the rural domestic plan could have 1,931 hookups in the southern Gregory County area alone.

The agricultural land study and soil tests disclose that presently 52,000 acres have been included for irrigation with 130 acres per center pivot irrigation circle, 400 circles could be maintained on 52,000 acres. There are 800 farm units in Gregory County alone which means that one-half of the units in the county could have one irrigation circle if the water conveyance system to handle the delivery would be feasible. This would not service the total irrigable acres in Gregory County, and in view of the vast quantity of water stored in the forebay of the hydropower project, and the ability to lift additional water in such short periods of pumping time, supporters of the project would like to see the proposal allow for further expansion of the water projects as an off-shoot of the pumped storage power facility.

There are also great possibilities and much interest in secondary acres to the irrigable primary acres which would be available to be watered down in the off season when primary irrigation has halted and many farmers and ranchers express interest in filling stock dams and dugouts for livestock use in the irrigation off season.

The proposed plan further addresses itself to the diversion of water to natural creeks and streambeds to relieve local water shortages during drought periods.

The anticipated pumping period for the powerplant forebay is 1,970 hours per year and it appears feasible that other reservoirs could be filled in the off-hours to handle these additional proposed water projects as well as supplying the 52,000 acres proposed for primary irrigation.

The above-mentioned counties in this area have been declared drought disaster counties in 1976 and in 1980 during which 2 years out of the last 5 years there was sparse crops grown and many livestock herds were liquidated or severely reduced in size.

With the everincreasing tax on agricultural land and the rising costs of farm production, coupled with the gamble of dryland farming, the participants in this proposed water project to a point where they require irrigation to stabilize the economy of their community. With the costs of feed, fertilizer, cultivation, and general-farming operations at such an inflated level, the 1980 inflation rate in this area hitting 13.5 percent, the members of the agricultural community cannot survive financially on a hit-and-miss, dry-land, farming and ranching operation wherein periodic and cyclical drought conditions leave them without cash crop production or feed and water for their livestock.

We ask for your support of this multipurpose water project.

Senator ABDNOR. Thank you, Cathy.

STATEMENT OF JERRY RHODES, MANAGER, WEST RIVER CONSERVANCY SUBDISTRICT

Mr. RHODES. My name is Jerry Rhodes and I am manager of the West River Conservancy Subdistrict which serves 11 counties from the North Dakota to Nebraska borders, approximately 20,000 square miles.

This Gregory unit, of course, is within our subdistrict. The whole purpose of the subdistrict, basically, is a strong commitment to the continued responsible development of multipurpose, water resource projects in western South Dakota.

I must say there are many farmers, ranchers, and municipalities who are faced with a serious shortage of good, potable water. Many of the ranchers in western South Dakota have been forced to haul potable water at a tremendous expense and burden. Many municipalities are presently faced with spending hundreds of thousands of dollars for new treatment facilities and/or deeper wells.

This hardship is highly unnecessary because of the high quality and quantity of the water which flows through South Dakota every day from the Missouri River unused by South Dakotans.

Now, again, the Federal Government has a commitment and, I mean, a moral commitment to South Dakota for the thousands of acres of good land that has been permanently flooded in the upper Missouri basin and again for the purpose of providing flood control to the States in the lower Missouri basin and Mississippi basin.

Many years have passed and we find this commitment to offset the tremendous burdens we have incurred in order to benefit the Nation as a whole largely ignored with no clearly stated Federal commitment to offset the losses. The Nation as a whole for several years now has been faced with a shortage of oil and must now turn to other sources to help offset our depleting oil resources.

In western South Dakota we have two major projects which could be a step toward this goal. They are the West River aqueduct and the Gregory County pumped storage unit and, again, both projects I must stress are multipurpose projects which will produce revenue as a result of water-and-power sales.

The West River aqueduct would be a major pipeline across central western South Dakota from the Oahe Reservoir to the Wyoming border. The aqueduct would provide potable water for citizens of western South Dakota and water for industries in eastern Wyoming.

The Gregory County pumped storage unit would provide electrical power for no less than a six-State region. The unit would also provide water for rural water systems, municipalities, irrigation projects and the possibility of recreational use. The Gregory unit is a 1,800,000-kilowatt hydroelectric unit that would increase the existing capacity of the Missouri River hydroelectric system by almost 60 percent.

The site has future expansion capabilities to provide up to 2.4 million kilowatts of capacity. This could save the United States approximately 6 million barrels of oil a day.

In summary, Mr. Chairman, I guess it was very evident through the last election and what the Nation and the people really want. They want this country put on a very sound, economic basis and in general I guess what we are saying is they want a good return on their tax dollars.

The Gregory unit in the subdistrict's estimation is one of these particular projects that has a payback requirement, would be a good investment for taxpayers' dollars.

Briefly, a little bit on the aqueduct, the subdistrict in the Black Hills and West River subdistrict both support the coal slurry pipeline concept, but they do not support the pumping of the Madison formation. Now, on the grassroots level we can spend hundreds and hundreds and thousands of dollars on studies on what is happening to our aquifers. But, as I travel throughout western South Dakota talking to these ranchers they can tell me what is happening to their deep wells. They are adding more pipe, they are putting in pumps on wells that at one time 5 years ago flooded naturally. The aquifers are dropping.

Wall, another community, is faced with their aquifer dropping 10 to 12 feet a year.

Kadoka is faced with that same problem and it is a problem that is not necessary. We have the sources here in South Dakota. We need to put them to use and we support the multipurpose concept projects that will have payback benefits. We are not looking for big handouts saying, "Here, go ahead and build a project." We want a multipurpose with payback benefits.

Senator Abdnor. Thank you.

STATEMENT OF DENNIS W. POTTER, EXECUTIVE DIRECTOR, FIFTH DISTRICT PLANNING AND DEVELOPMENT COMMISSION

Mr. Potter. For the record, I am Dennis W. Potter, executive director of the Fifth District Planning and Development Commission based in Pierre.

On behalf of the District Commission, I would state that we support your Senate bill with regard to the Gregory pumped storage project and your bill with regard to the Energy Transmission Systems, Inc., coal slurry pipeline.

There is no doubt that development of energy resources in the Western United States will require the utilization of significant volumes of water. The concept set forth by Exxon Corp. to transport 1.7 million acre-feet of water from the Missouri River to northwestern Colorado is a clear indication of the need for water in that part of the United States.

The reason Exxon has focused on the Missouri River, in my judgment, is quite simple: The water stored behind the mainstem dams of the Missouri River is the only place in the continental United States where large volumes of water are readily available for use.

The Colorado River system is nearly overappropriated or is significantly overappropriated, depending upon the set of figures under discussion.

The Columbia River system is protected by law against the export of water outside of that river basin, thus only the Missouri River remains available as a source of water for energy development.

The State of South Dakota has yet to make full use of the Missouri River water available to it. Should the Federal Government or private corporations desire to export Missouri River water to other States, it is important for South Dakotans to receive tradeoff benefits as part of that export action. If we do not, then I fear South Dakota will have lost a great opportunity to fully develop its water resources. I would hope that you and the rest of the subcommittee members will be constantly on guard to protect the rights and the needs of this State.

I would be happy to answer any questions you may have.

Senator ABDNOR. Thank you.

Senator DOMENICI. Mr. Chairman, just as a member of the committee and as a Member of the U.S. Senate, I want to assure you that I am for projects of this dimension and with these goals. In fact, I think one of the problems we have in our country is that we have let our enthusiasm for building and doing dwindle.

So, the questions I am going to ask doesn't have anything to do with the philosophy. I would take great joy in being part of a big project like this. Let us get off the dime and get on with it.

But, let me share a couple of concerns. I think you all should know that just to put the Federal Government money source into perspective, we are going to pay $90 billion this year in interest on the national debt. Just to put it into some kind of historic perspective it could be compared with Lyndon Johnson's successful budget for all of America when he put the unified budget together and brought social security onboard. He was pestered with the political problem of presenting the first $100 billion budget. That's how social security got off the budget, incidently. So, we are paying $88 billion in interest. A few years ago the entire budget of America for everything was $100 billion. The problem with this kind of project, as you look down the line, is that we have to find between one-half billion and a billion dollars and we have to appropriate it even though it is going to be paid back, depending upon the arrangement, perhaps over 40 or 50 years. The truth of the matter is that we don't have that money around any more that will show up as being borrowed as part of this debt that we will pay this $88 billion against. I think the Reagan administration is talking about some new mechanism for funding these kinds of budgets. I am not sure that they have come into full fruition, but it appears to me that the notion they are talking about is the Federal Government as some kind of guarantor for a revenue-type bond that goes into more of the marketplace for money with the Federal Government's Corps of Engineers or Bureau of Reclamation, nonetheless developing the project. I don't know whether that would make this kind of project more difficult, less feasible. Do any of you have any observations or thoughts?

Mr. NELSON. Jeff Nelson. I am certainly well aware—not as much as you—but well aware of the financial straits of the Federal Government. The Federal guarantee program is very near and dear to us in the rural electric program. We just got though fighting what was a very confusing battle to us to retain Federal guarantees for the Rural Electrification Administration through Federal finance benefit. That program is very much misunderstood as providing a major subsidy in some sort of a tremendous incentive for financing.

Today in order for us to finance conventional facilities in the rural electric program through Federal finance banks, we are looking at an interest rate of 15 percent. Now, it seems to me that to ask for customers that are willing to repay the investment, that offers some national savings, such as the displacement of 6 million barrels of oil deserves Federal recognition beyond simply saying, "Here is a Federal guarantee; good luck, fellows, in the private money market." That is not a very good incentive for us or, for that matter, other utilities to jump right in and try and undertake the very difficult challenges that are involved with a project of this magnitude.

The other problem, of course, that is more practical on projects specifically like Gregory is that when you are dealing with utilities spread over six States with transmission requirements to deliver that power, it is very, very difficult and it seems to us that we have already got a system that works and why not use that system?

So, while I recognize your money problems we have all got those money problems. To ask us to go with a Federal guarantee of the private money market is very little consolation, as far as I can see, for furthering water projects such as this.

Senator DOMENICI. What's the incentive in the rest of America to get off the crude oil and crude oil derivatives as a source of power?

Mr. NELSON. I assume, Senator, if we can reduce our dependence on——

Senator DOMENICI. No. I said: What is the incentive for others in other parts of the United States for utilities, cooperatives, municipally owned or privately owned to get off the crude oil? Is it not that they are looking around for a cheaper source of energy? Won't they start changing as the price of oil goes up?

Mr. NELSON. That's a question that troubles all of us in the industry. The problems we have got with complying, for example, with the Clean Air Act, and other environmental constraints on the burning of coal that affect cost for new plants even beyond what the old costs are for burning oil. It is a very difficult problem. The flip-flop of Federal policies: burn natural gas, no, that's not a good idea. Let's burn oil. There is just not the consistency there that anyone can rely on.

Senator **Domenici**. I guess the point I am trying to make, Mr. Chairman, is not that I am opposed. I am on your side. I would like to get it done.

What I am saying is that we have to confront 50 States with 100 Senators. They have kind of a mixed up idea of how they get their energy. Some are still burning fuel oil; some are still burning natural gas; many are going to coal; there are consumers that have to pay and those who manage have to make decisions based upon the price of the base fuel and certainly more are going to coal as oil goes above 30 and approaching 40. I guess I am asking if we are pushed hard by other Senators saying, "Why can't these six States, if they want this project to displace crude oil, why can't they pay the market like the rest of the country in terms of alternative fuels?" How do we respond?

Mr. **Nelson**. I understand very well that issue and I don't think I am smart enough to provide a clean answer. I am not sure there is a clean answer to it. But, it does not diminish the value of a project like this and if in fact it will not be developed as a result of not providing some Federal incentive, then, perhaps, a Federal guarantee that may be stronger than I am aware of is the route to go.

Senator **Domenici**. I have one other question for Ms. Wernke.

I ask you the same question. Again, I am on your side. I understand the problems your farmers are having with dry farming and the cyclical nature of it, and the difficulty that they are having in the whole agricultural economy. But, let's just play the devil's advocate for a minute.

Nebraska is not having that problem. In fact, the study of the Ogalla Basin will indicate half of that basin is drying up. Why should we provide this system for your farmers at almost little or no cost with Federal dollars?

Cathy Wernke. I tell you what. Since 1950 our farms have depleted from 1,462 farm units to in 1975 to 800 farm units and the thing about it is you hear a lot about corporation farming, you hear a lot about keep the small person on the farm, and everything. I don't know how you are going to explain it to Nebraska, but my problem is that I can not stand by nor can they and see this happening. I don't want to see Gregory County, or Tripp County, or any of those surrounding counties, I don't want to see those become under a corporation situation because that's the worst possible thing you can do. Keep those people on the farm.

I don't know what the answer is or what answer you would give them.

Senator **Abdnor**. Tell them how many thousand acres of land in Gregory County were lost. I am not picking on Nebraska because of their public power district is getting much of the electricity that comes out of our sacrifice.

Cathy Wernke. Gregory County lost 20,000 acres of prime cropland along the river when Francis Case Lake went in, Fort Randall Dam. That's 4 percent of our cropland and it has never been replaced.

Senator **Domenici**. I understand and I think there probably is justification and we can find it. Maybe we don't need to find a justification for the others, maybe it is just a good deal and you indicate in terms of its having great national significance in and of itself without trying to draw comparisons. I will help you with some answers.

The west coast has the cheapest type of energy because we have developed all the hydropower for them at the lowest interest rates, longest payouts in the world, and they keep adding peaking capacity there and we don't ask New York. They should be very angry because they are paying a lot of that bill when you look at the Fedreral tax structure. We do it because it is good for the region and makes good sense.

Nebraska has a tremendous amount of reclamation projects that you all don't have.

Senator **Abdnor**. Let me say that Senator Domenici can tell you about this. He has had to listen to this while dealing with a $750 billion budget and trying to hold it and cut it in some areas. He has had a lot of experience in that. He is really serving a very good purpose here and you know what we are up against when we go before Congress to try and find funds.

Senator **Domenici**. Let me ask you, either you or the staff. Have we proceeded far enough on this to have the benefit cost ratio?

Mr. **Nelson**. Yes, sir. The Corps of Engineers—do you know what the most recent one is?

Senator **Domenici**. 1.8.

Senator **Abdnor**. Thank you. I am sorry we can't take more time but we have to move along.

The next person is our regional EPA administrator from Denver.

STATEMENT OF STEVE DURHAM, REGIONAL ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Mr. **Durham**. My comments will be contained to the ETSI pipeline issue and the environmental concerns that have been identified by the environmental agency with regard to the ETSI pipeline.

Let me say that the Environmental Protection Agency, I believe, is viewed as changing its role on the Reagan administration. I certainly do not view our role as one of being an impediment to progress but rather our role is to identify critical envrionment concerns and call that to the attention of the policymakers in the United States.

We do believe that coal slurry pipelines can be built and operated in a safe manner environmentally and we have through our comments on the environmental Impact statement identified a number of environmental concerns with regard to this particular pipeline.

The first and most important one issue we wish to raise is the potential for ground water and surface water degradation as the result of waters pumped from the Madison aquifer.

A related concern, and, perhaps, a more general concern with regard to the overall task of the subcommittee is the issue of the transportation of water from where it is relatively scarce to an area which is relatively abundant. Drawdowns from the Madison aquifer will range from a minimum of 100 to 400 feet and this will dramatically affect the water supplies of Edgemont, S. Dak., and the other agricultural areas of eastern South Dakota, parts of Nebraska, and Wyoming.

Because this project affects three regions, I will submit our comments that have been combined from the three EPA regions: Regions 6, 7, and 8 and I will submit those comments, but I would like to read verbatim the position so there will be no question as to EPA's concerns in this issue.

EPA believes that the Oahe water supply alternative is environmentally preferable and would avoid many of the adverse environmental impacts associated with ground water pumping and discharge of the dewatering plant effluent. Region VIII believes that the waste water reuse alternative proposed by the western South Dakota conservancy district has merit and could be utilized. However, if this alternative is chosen, careful consideration needs to be given to treatment of the dewatering plant effluent.

Given these two situations, one, that there will be substantial environmental impacts unless the preferred alternative is accompanied by acceptable mitigation measures; and, two, that there exist environmentally preferable alternatives that would achieve project obligations, EPA recommends that the Department of the Interior withhold approval of the BLM rights-of-way permit, pending at least some negotiations between the principal affected parties.

Specifically we recommended that after the 30-day period to review the information in the final EIS, that the Department of the Interior offer to moderate negotiations among the ETSI corporation, the State of Wyoming and the State of South Dakota. If Nebraska and Montana are interested they also could be invited.

The purpose would be twofold: To determine if there is a consensus among the parties as to the preferred water supply alternative and to determine the likelihood of agreement on mitigation measures for the preferred plan. In the former case, the partries could begin to define how such an alternative supply system could be set in motion. In the latter case the State of South Dakota may wish to propose alternative mitigation measures, especially in view of the difficulties in being able to identify damages from the ETSI system.

Let me say that in addition to that that our comments on the drawdown question of the Madison Aquifer could perhaps be summarized best by saying that no one knows exactly what the ultimate effect of the volume of pumping that is being proposed will have on the Madison Aquifer. We are concerned that condemnation of the Madison Aquifer could occur from the Minnelusa Formation and we believe that it is going to be very difficult to fully understand all of the possibilities until the pumping actually occurs.

So, we additionally believe that there needs to be mitigation plans and agreements in place prior to the beginning to any substantial drawdown of the Madison Aquifer.

Senator ABDNOR. Thank you.

Senator DOMENICI. Is the position you just stated, Steve, the position of the National EPA?

Mr. DURHAM. Yes. Regional comments have been combined and I believe I currently present our position.

Senator DOMENICI. The current National EPA position?

Mr. DURHAM. That is what I am saying.

Senator DOMENICI. Does the EPA have to approve of the ETSI permits?

Mr. DURHAM. No, sir, we do not. We are in a position solely to offer comments to the permitting agency and in this case, the Department of the Interior, and our comments are informational and advisory only.

Senator DOMENICI. My last question has to do with your recommendation that the Secretary of the Interior be utilized to negotiate and workout, between the two States, some of the problems that have been discussed here, and I am sure there are others. That is strictly an informal arrangement under existing law, is it not?

Mr. DURHAM. That is correct.

Senator DOMENICI. They would have to want that, I assume, unless we did something in Congress to condition this whole situation. Participants would have to want Interior to do that and Interior would have to want to do that, is that correct?

Mr. DURHAM. I believe that is correct. ETSI corporation, I believe, clearly has the legal right under Wyoming law to pump from the well fields in the Madison Aquifer. I wouldn't be surprised to see substantial court action regarding the damages in other States, but I am not, and I wouldn't pretend to be, an expert on South Dakota water law. But, I doubt if there is an interstate compact covering Madison Formation which leaves everything a little bit at risk in this whole issue.

Senator ABDNOR. In your best judgment you strongly feel that for any permits granted we should get this worked out between the States?

Mr. DURHAM. Certainly. If the final decision is to be to draw the water from the Madison Aquifer it would certainly be simpler in the long run and I believe certainly in the best interests of the parties involved in South Dakota who are not covered legally by the Wyoming mitigation agreements to have those in place in advance.

The potential for damage to their water supply and to water levels that can be affected is significant and without having that worked out in advance I believe all the people involved in South Dakota and Nebraska will be at risk.

Senator ABDNOR. The EPA says it is better to draw water from the Missouri River?

Mr. DURHAM. We believe that's an environmentally preferable alternative. We are not evaluating the cost effectiveness of the alternative nor have we, Senator Abdnor, in response to a question from your office, we were unable in such a short period of time to evaluate the alternatives of waste water effluent from Black Hills communities, but we feel that is a definite possibility.

Senator ABDNOR. You are looking at that?

Mr. DURHAM. Yes, but we couldn't get an answer for you in the short period of time we had.

Senator ABDNOR. Do you have an estimate of cost between them?

Mr. DURHAM. No.

Senator ABDNOR. We really appreciate you coming out here. It was a big help.

Mr. DURHAM. Thank you.

Senator ABDNOR. Next I want to call on Mr. Hoffman and also Mr. Hale. Would you gentlemen come up together?

STATEMENT OF DANIEL R. HALE, VICE PRESIDENT, OCCIDENTAL OIL SHALE, INC.

Mr. HALE. Thank you very much, Mr. Chairman and panel and ladies and gentlemen.

In sitting here this morning I felt that I was in the midst of one of those good news bad news stories. I think the good news is that water is available for energy development which is the subject I was asked to comment on here today.

There apparently is water available in the Missouri River basin. The recent studies done pursuant to the Energy Research and Development Act indicate there is water available in the Colorado River Basin for oil shale development up to 3,000,000 barrels per day. But, unfortunately we have a number of institutional barriers which prohibit or impede that development and, I think, I will just list those very briefly.

One of the major impediments to development of an economically-sound project is prediction of yields and nothing includes the prediction of yields any more than unquantified reserved water rights.

I recognize that the problem of unquantified reserved water rights is a very emotional and sensitive political problem, but I think it is one that Congress is going to have to bite the bullet on sooner or later, particuarly if the Colorado River Basin where projects just have a difficult time going forward unless they know how much water they are going to be able to yield.

I think the second institutional barrier that we see is the Endangered Species Act. The Colorado River, entire Colorado River Basin is subject to two ecologically insignificant but, nevertheless, very well publicized minnows: The Colorado River jaw fish and the hump-back chub; don't be misled, the squafish can get up to 6 feet in length. The chub is a sucker and was considered a trash fish for many years and it remains relatively small.

But, as a result of that it literally can stop any project on the entire Colorado River, any where in the entire drainage basin of the Colorado River.

As you know, the Endangered Species Act is the only Federal law I know of which not only can prevent a project from going forward, but under the *TVA* v. *Hill* case can typically stop and dismantle an existing project if an endangered specie is found or critical habitat of the new endangered specie is involved.

In addition to that I think that it is the only act that I know of that has no escape mechanism for a rule of reason to be applied whether or not a project is stopped or goes forward.

I think the third area where we have a great institutional barrier to develop water rights are the so-called section 404 permits under the Clear Water Act. These permits are designed to regulate dredge and fill activities and navigable waters on wetland. However, by pushing the definition of navigable waters to the breaking point of the commercial clause of the constitution, we are finding 404 permits are required for just about every small nonnavigable streams in the West. Discharges for water pollution can adequately be handled, in our judgment, under the MPD's permits program so it would seem appropriate that 404 permits be limited in their application to truly navigable waters and wetlands. I think that was actually the congressional intent involved, but it has become a medium for forcing environmental impact statements and other things that cannot be secured under the MPD's program.

I think wetlands in the West is also a great problem. Most of the wetlands in the West other than the riparian and alluvium of the rivers are manmade, principally the result of agricultural return flows, ditch leakage, and the like, and as the wetlands legislation is in effect permanently signed, particularly uses of land, you must allow the continued agricultural return flow in the water.

I think that it is these institutional barriers toward the development of available water which is putting on the pressure for the intrabasin diversion of water.

And, lastly, I think that the one thing that must be done is—and I think your bill, Senator Abdnor, would be a very good medium for doing this—water rights vested under State law must be recognized and should not be taken by the application of other Federal law unless there is compensation paid. I think that in States where we have gone out of our way, we give water rights and particularly in the West, recognition and protection above all other property rights that I know of, and yet a Federal administrator or bureaucrat could simply wipe those rights out with a decision which is not subject to appeal and those grounds for which no compensation is paid.

We have got a case before the 10th circuit now in which this is a very issue based on a 404 permit. The water is allocated by interstate compact between Colorado and Nebraska. In that case the Public Service Co. of Colorado and agricultural users wanted to utilize some of the water allocated to Colorado, but the Endangered Species Act came into play. It was determined that the flood flows which this project would have collected might not wash out underbrush downstream on the Platt River and if that underbrush didn't wipe out it might provide a place for predators to sneak up and attack whooping cranes. That's the type of situation we have and therefore the water rights involved are absolutely useless.

Thank you very much.

STATEMENT OF TED HOFFMAN, NATIONAL SIERRA CLUB

Mr. HOFFMAN. I appreciate the opportunity to present my testimony. I am regional vice president for the National Sierra Club and my remarks will be directed toward the need for 100-percent cost recovery of Federal water projects and water conservation.

When I am talking about water projects, I mean all federally funded, whether seaports, channelization, dams, or whatnot. We are not using nor developing our Nation's water resources wisely. We believe that one single factor is most to blame: The Federal Government's deeply rooted practice of providing highly subsidized water resources that really benefit a small segment of society. These projects do not stand free market tests in which lending institutions judge the merits, weigh the risk, and reach a prudent, cautious business judgment. In the case of water projects the lending institution is the U.S. Treasury. Interest rates are cheap. Those who benefit almost never have to pay back the loan in full and some never pay anything.

We have been talking about water reform for a long time. In 1950 President Truman's Water Resources Supply Commission complained about the multiplicity of separate plans by the Federal, State, and local agencies that finally are thrown together in unsatisfactory planning.

Five years later President Eisenhower's Hoover Commission commented almost the same thing about water resources and it lacks coordination, fosters competition among its agencies, causes controversy, confusion, duplication, and waste and encourages rather than curbs bureaucratic ambitions.

More recently the 1978 Carter administration maintained that twenty-five separate Federal agencies spend more than $10 billion a year on water resource projects and related programs. Programs are often planned without a uniform standard basis for estimating the benefits and costs.

In 1973 a National Water Commission study made some simple sounding policy recommendations that haven't been put in force: Those benfited by water projects should pay for them—both construction and operating costs—rather than the public that is taxed for subsidies.

The backlog of authorized projects should be eliminated and we should use more realistic benefit-cost ratios in determining which projects should be built.

States should have a greater responsibility in planning, guiding, building, and paying for water projects.

A recent General Accounting Office review of six Federal irrigation projects found that the water produced will cost the Government between $54 and $130 an acre foot each year. But, the crops grown by the farmers will not yield enough revenue to cover the costs. However, the farmers will continue to buy the Federal water because they are charged a price below Government cost. As long as Congress is willing to provide such subsidies, economically unsound and environmentally destructive projects will continue to be promoted.

The Nation is losing 3 million acres a year including 1 million acres of prime farmland to urban sprawl, highways, parking lots, and water impoundments. If we could concentrate on reducing this loss instead of promoting Federal water projects that often irrigate substandard land, the taxpayers would get a break and valuable natural resources would be preserved.

Energy conservation of any significance did not take place until energy costs rose to near its true market value. We believe there will be no significant water conservation until the costs to the user refelcts the true cost of production.

In short, the Sirerra Club believes that water resource development should be governed by the competitive restraints of the free market as much as possible. To that end we urge as a most basic reform that the full costs of building and operating water development, including costs to mitigate environmental damage, be recovered from those who benefit through an equitable user fee system.

Thank you.

Senator ABDNOR. Thank you, Mr. Hoffman. Let me ask you, as long as you are on the subject: How would you propose to writeoff the cost of the bulk of our water development programs over the years since one of the main programs has been flood control? How do you get that money back?

Mr. HOFFMAN. You are talking about identifying the user?

Senator ABDNOR. One of the biggest problems we are having with our inland water fees and deep water seaports is trying to be equitable and fair. In there some way you know of doing this? We are trying to find this out.

Mr. HOFFMAN. I think those barges shouldn't be running on that stream free of charge.

Senator ABDNOR. We are going to charge them but do you think we should pay the whole thing or maybe we should charge some of it to flood control.

Wildlife has done very well. Because of it there is a lot of recreation. What we are trying to do, what we are holding hearings for all over the country is to get a true breakdown of what each group ought to pay? You can't single out one and try to assess everything against them for the cost of maintenance and operation. Flood control has been one of the largest programs for water development. I don't know how you can collect fees equitably. That's what we are trying to figure out. I thought you might have some thoughts on it.

Mr. HOFFMAN. Senator Abdnor, I do believe that you can identify most of the people in a flood control area that do benefit and most of those are the people who own the property that's appropriated in value when a flood control system goes in and we also spent about $10 billion on flood control projects, but there has been over that period since we have been building those flood control projects, we have spent more money on flood relief than we ever did before.

Senator DOMENICI. Mr. Hoffman, I don't know that you know and I am not sure that it is very popular here and I certainly don't want to imply that the chairman here supports this, but I am the Senator that is responsible for the user fees on barges now. That's kind of interesting because my colleagues couldn't understand how we got it done but they knew I didn't have any barges in New Mexico, so they were quite sure that I had an easy job, politically speaking.

But, let me ask you this: I would think that the Sierrans in the Rocky Mountain area, Colorado River area, States like Montana and Wyoming would be very concerned about the flipside of your position. Let me tell you: If water used for irrigation is going to remain available for irrigation, and the farmer is going to be required to pay the full cost of any kind of irrigation project, I will predict that a very interesting market phenomenon will produce all of that water for energy development because they will pay for it. You can rest assured of that.

I think that you all don't want that. I think you want a little bit better balance than that, but I can assure you that whatever water is available in these basins that has not yet been allocated, that if you go with full cost recovery in every instance from this point forward for any kind of project, my best guess would be that a majority of the water would be turned into energy projects and there would be no diversity of use.

Does that concern you or not?

Mr. **Hoffman**. It certainly does concern me and I would also like to state that the Bureau of Reclamation projects, especially the ones like this Central Arizona project, really are not wholly by any means going to produce water for agriculture.

Let me state one example. Tucson, Ariz., is looking for a bailout. They are irrigating 17 golf courses. They have bought up 12,000 acres of irrigated agricultural land just for the water rights and they are projected by 1985 to buy up 35,000. We are looking down at energy, we are looking at that type of use, Bureau of Reclamation water.

Senator **Domenici**. I just wanted to make my point. You are concerned, I am concerned, and I am sure Chairman Abdnor is concerned about land coming out from under irrigation because of urban development and things you have described. It has reached the national level. The new agricultural bills, both in the House and Senate, direct attention to that. I would predict for you that the amount of land that is going to come out of agriculture as a result of a total pure marketplace phenomena if you do that with water available that the amount of acreage to come out with energy development will increase.

That other phenomena that concerns you, I don't have an answer but I believe that is the case—and I am not even prepared to say—that's totally in opposition to the national interests at this point. I don't know. But, I am quite sure that that is what is going to happen.

Mr. **Hoffman**. I do not want to leave the impression that I think this is a simple forward solution. I know that the tremendous applications of it have been working since we are a nation on water projects, and we haven't come to a solution yet.

Senator **Domenici**. I was very impressed with the way you presented the testimony. I think it is good for us to get it from those involved in what you call institutional impediments and I am sure each of those that you indicated are to some extent an institutional barrier. What I would say regarding endangered species, and, incidentally, I voted with those who wanted to change that law. We didn't succeed. We don't know yet what the Reagan administration will do with the appeals process. We know what happened over there in Tennessee but we had Secretary Andrus' office to whom it was appealed, but he is no longer around. It is that group which will be Reagan appointees who will look over that new statute as to whether or not the endangered species act brings down the big dam.

Mr. **Hale**. Senator, your statement demonstrates the weakness of that. I am concerned that while this energy shortage is great enough we might question the value of the Hump-Back Club. It just simply is not the type of certainty that you can spend billions and billions of dollars on a project.

Senator **Domenici**. My last question has to do with your first impediment which you said was unquantified water rights that negate the marketplace requirement of predictable yields.

Would you not assume that we are going to arrive at a point in time when the Indian people themselves are going to be adversely affected by the fact that the nature of their rights are unquantified also?

Mr. HALE. Certainly, when there has been an economic incentive to do so they have indeed quantified rights and then sold them to mining and energy companies.

Senator DOMENICI. Let me tell you what I believe. I am moving toward a position that Congress ought to get involved in a series of national hearings on the unquantified water rights because the reading of the ad hoc decision by the Supreme Court involving Indians' water rights involved is just incredibly difficult from the standpoint of predictability. I believe, if I am reading some Indian people right, they want to start developing their resources: Coal, uranium, whatever it may be. They are going to suffer from the same predicament. Who is going in with a huge major development when their water rights aren't quantified either? It would seem to me that we are coming close to a point where everyone should look at and want to quantify it even if we have to end up passing judgment.

Do you care to talk a minute on whether my thinking is right or not?

Mr. HALE. Well, first of all I think that because of your State's action in its litigation with the Forest Service that we have cleared up most Federal reserve water rights, questions, or at least made them fairly diminutive compared to the Indian water rights, so the real problem is the Indian water rights, and I think that the suggestion which you have, while it may be demonstrated in certain instances, not be particularly equitable, I think it nevertheless offers a degree of certainty which will benefit both the Indian users and non-Indian users of these scarce waters. And, I do think that, perhaps, Senator Abdnor's bill could also offer a vehicle that we at least are not going to inadvertently create any new implied water reservation that if Congress desires to reserve water in the future they should do it directly rather than implied reservation.

I would think that absent the solemn task of having to look at each reserved right separately some sort of general proposal like you suggest may be the only solution which will ever work.

Senator DOMENICI. I am certainly not suggesting, and I don't want the record to reflect that I have made a decision that I want to do this. It would have to be a major leadership decision, in my opinion, in the Senate and we would probably even have to do it some special way because I don't know of any committee that would have the kind of resource, Mr. Chairman, to undertake it.

I don't know if there is enough interest to keep five or six Senators working for 8 or 9 months, which is what this would take, but we don't want another extraneous study that is not congressional on the issue because we are going to go right back. We have had plenty of those. It has to have some kind of goal, even if it is simple. When we are finished we will know whether or not there is a congressional rule in trying to quantify the unquantified water rights in parts of the country.

Senator ABDNOR. There is growing interest in that. The challenge is overwhelming. The other restraints we have before us, it is something that is going to have to be dealt with somewhere down the road. We will have to face up to it one of these times.

Well, it is 12:30. We will reconvene at 1:30.

[Whereupon at 12:30 p.m. the subcommittee recessed to reconvene at 1:30 p.m.]

AFTER RECESS

Senator **ABDNOR**. The meeting will come to order.

I am very, very pleased that Governor Janklow found it possible to stop in and testify. I know that his schedule is busy, he wants to keep moving and he has other places he has to go. So, it works out fine, Governor.

We are just starting out this afternoon, so, why don't you be our leadoff witness.

My only regret is that Senator Domenici had to leave before he could meet you.

You may proceed.

STATEMENT OF HON. WILLIAM JANKLOW, GOVERNOR, STATE OF SOUTH DAKOTA

Governor **JANKLOW**. Senator Abdnor, thank you very much and I would like to note my appearance on behalf of the people of South Dakota.

First of all, I would like to make an accolade that's more than the usual accolade, and that's that this is the first opportunity that we, the people of South Dakota, have had, Senator Abdnor, to explain to our elected representatives in Washington some of the fears that we have on injuries that can be done as America races toward energy independence and at the same time some of the consequences that can arise as a result of action that may be of benefit to one area of America but can bring detriment to the other.

I appreciate your taking me out of turn today. As you know I had a meeting in Sioux Falls an hour and a half ago that I just left, and I have to be in Custer State Park at 3 o'clock to dedicate the Youth Forestry Camp in memory of Governor Nils Boe who started it at the time he was Governor.

There are two areas I would like to focus on today for yourself and Congress consideration.

The first one is, I guess you would call it a problem, but yet an opportunity for South Dakota, called ETSI. We first became aware of ETSI back in the early, middle seventies at a time when the consideration was made to moving coal by the slurry pipeline method. I don't need to go through the long history of it, but to say at the present time it appears they have a purported—I think it may not be very valid—a purported license or permit from the State of Wyoming or Wyoming engineers' office to take 15,000 acre feet of water on an average not to exceed 20,000 at any one point in time of water from the Madison formation.

At the time that this permit was issued everyone of the parties, the Governor's office, the legislature in Wyoming, the power companies that were involved felt that this was not good water, that it was not potable water.

As the circumstances have shown as time has gone on this was potable water. As a matter of fact, it is pristine, good, clear water; in most instances the kind of thing that in the semiarid west people killed each other over historically. Fortunately we don't have those problems any more.

But, the EIS that's recently been issued confirms the suspicion and some of the worse suspicions that some of us as South Dakotans, or, really, as Americans, have that the right of one company to pursue a profit or the right of one State to issue permits shouldn't infringe on the neighbors either by financial detriments or detriment with respect to society. For example, the EIS indicates when you are talking about adverse impact, one of the adverse impacts that you will have is with respect to pressure from the Madison formation. We are talking about the Edgemont area approximately 290 feet of wellhead pressure drawdown as indicated by EIS. We are also talking in the Provo area approximately 340 feet. No one really knows. We are dealing with computer models.

Just as you can make mistakes in how you program computers. The computer only gives you the information you put into it and at best it is a scientific guess based on mathematics and not reality.

The greatest danger of all is to rely on a computer project and find out later on, to the people's detriment, that the computer was wrong with respect to the projections that it made. But, under the scenario that is best anticipated, the Provo area will lose approximately 340 feet of well head pressure.

Other aquifers indicated will be 90 percent of what the Madison formation will suffer in that area and I don't think that it is fair to say the area isn't too large or the area is just a small area that's going to suffer detriment. Either you have detriment or you don't.

As a result what's going to be the consequence? One, we are going to have greatly increased pumping costs to the people of South Dakota and also to the people in eastern Wyoming. We are going to have to put in new pumps and a lot of instances they are going to have to sink new wells at a time when the cost of energy is rising almost to the geometric rate as opposed to arithmetically. We are faces with the increased pumping costs that will be involved in going down deeper for the water as a result of the reduced wellhead pressure from the Madison.

In the Niobrara field it is anticipated a loss of approximately 7 cubic feet a second of flow and from the Crook County field we are anticipating approximately 11 cubic feet a second. What is this going to mean?

One, we are going to have higher water temperatures. Two, we are going to have lower dissolved agents in our water supply. Three, increased silt deposits and, four, we are going to have decreased waste carrying capacity.

In the community of Hot Springs it is our best engineer's estimate on the State and local level that the community of Hot Springs is going to suffer from $100,000 to $200,000 a year moneys that they can ill afford as a result of the increased cost they will have to pay to maintain their water quality as it flows out in the effluent after it has been treated by the local community facilities.

Senator ABDNOR. Does that show up on the impact statement?

Governor **Janklow**. I don't know if the cost was in the impact statement.

Senator **Abdnor**. That's a very important feature. Sorry to throw you off.

Governor **Janklow**. We can talk about the WET system and there has been a lot of discussion about the WET system, but the WET system in concept makes an awful lot of sense. We are dealing with waste water. We are dealing with water that is subject to preliminary or secondary treatment that holds the capacity to be used in that line, that the surplus waters in some instances there are appropriated water rights to it, which everybody feels could be resolved, which is water that is available to be used for the ETSI system. You could save almost $30 million a year just to the taxpayers in western South Dakota that they will have to come up with over the next decade as a result of the necessity to maintain Federal water quality standards with respect to discharges from municipal and community wastes.

What I am trying to say as we presently look at it, ETSI offers nothing for the State of South Dakota; not that it has to, but it offers great detriment and we have been offered nothing of any beneficial factor in return. There isn't any way we would trade money of any quantity for the Madison formation water. We find the Madison formation to be unacceptable by any stretch of the imagination. There is an alternative.

We in South Dakota have throughout our history gone farther than most Americans to contribute to national effort. We sit on top of the greatest, or third greatest supplies of nuclear weapons in the world. We have lived with instant destruction at our doorstep for at least two or three decades as a result of the nuclear facilities that are placed in America's national defense all over western South Dakota. We have really allowed our lands to be condemned. We allowed our lands to be taken from the Missouri River dams so that States, like Iowa, Nebraska, and Missouri wouldn't be flooded, so that they could have cheap, low cost hydro-electric power in the public interest, so they could control downstream navigation from Sioux City, Iowa, down to the Gulf of Mexico.

What I am trying to say is: South Dakotans have always given even when it has been to our detriment or our Nation's betterment, or nothing in it for us.

When we look at something like the ETSI pipeline it only offers potential detriment. What could it offer? They could go to the Missouri River for that water. Yes, it would involve some additional increased preliminary costs or front-end costs, but as a result of the recent tax legislation that you and the rest of the Congress just passed, there will be very substantial benefits to these companies in terms of much speeded up writeoffs with respect to their depreciation especially with respect to real property depreciation of the pipeline. It will be able to be written off far in excess, I should say, speed it up and not have to be used over its entire useful life. There are tremendous new financial advantages to the company with respect to any additional investments they may make and the important thing is: Can you put a cost on what it takes for a farmer to have water or rancher to have water or community to have water in the semiarid West?

So, on many occasions we have talked to the ETS people trying to convince them that their source of water ought to be the Missouri River. It is a course that we still take. It is a course that we will still pursue but to ask you people in the Congress to help us, help us make sure that South Dakota doesn't get injured so Arkansas can benefit. The ranchers and farmers all over western South Dakota don't suffer social, cultural, economic, or environmental dangers or injuries so that somebody else can benefit financially.

One thing that I suggest, that the Wyoming Legislature and to the Governor of Wyoming who has been an ally of ours in this fight, and that is that long after the ETSI's of this world are gone, and long after America solves its energy problems, and once they decided to do it, America will solve its energy problems, they just haven't really decided to do it yet, unfortunately, but long after these things are gone the people of Wyoming and the people of South Dakota or its successors are still going to be here and we are going to have to be neighbors, relatives, and friends and still have to get along with each other, and I see a great danger to allowing the pursuit head on for not energy independence but energy sufficiency at the right price and causing significant human injury.

Let me jump to one other subject, if I can, Senator, and that's with respect to the Gregory pumped storage unit. This is probably something that holds as great a potential for South Dakota as is anything that has been done in the last 50 years. I think it is unfortunate that not more of our citizens and people know about it because it holds such a tremendous potential.

Whenever you hear of water development you hear people say, "I am for it but don't take any of my land." It is like people don't want highways. Everyone wants highways to come to their town but we don't want to give you land for it.

We all want electricity but we don't want them running across our land.

When you look at the Gregory pumped storage facility I have a couple figures here that are astounding. The total amount of generating capacity on the current dams on the Missouri River in South Dakota in Yankton, in Pickstown, Crow Creek, Lower Brule, and Pierre on the Oahe is 2,400 megawatts of power. The Gregory pumped storage facility, the best engineering estimates, which are very preliminary, the engineering estimates we have is that it could generate approximately 1,180 megawatts of hydroelectric power.

The concept, as you know, is simple. And, this is something you fought for in the Congress, this particular project. it will raise water approximately 700 feet from the Missouri River at nighttime when there is no real demand for that power that can be generated to hydroelectric facilities. In the daytime we have a shortage of power. When we need that peak power it will allow the water to be reverted and go down the same tubes back to the Missouri River through turbines that generate approximately 1,180 to 1,200 megawatts of power. By running those pumps up hill an additional 4 to 5 minutes a day we could move enough water—it would move so much water, as a matter of fact, the pumping capacity would be 1,650 cubic feet a second. We would move so much water that it would hold the potential to irrigate approximately 57,000 acres of land in Gregory County, which is a fabulous amount of water development for 4 minutes of pumping time of low-cost power.

The power, as it would come up, as you know, would be cheap power and sent down at a higher rate of power which would provide not only great economic development and potential for the people of South Dakota in terms of construction, in terms of the resource that would be created, but in terms of the ability of our people to be compensated for the extra expense that we spend in rural America just to survive.

The people in cities have problems we don't have, obviously, but we don't have mass transit problems because we have never had such a thing. We don't talk about bus service. That's all alien to us because you don't ride the bus from Chamberlain to Mitchell. The Lieutenant Governor won't appreciate these comments, but our bus service is sporadic and not the kind you would call of a mass transit nature. Our people that live in our cities all have to find their own way to work because there basically aren't—except in a few circumstances—community facilities.

Our energy costs for the energy costs for rural America far exceed what they are—I should say energy usage far exceeds what it is in urban America, and for a lot of reasons: One being the great distances we have to travel. But, the one way to make this more expensive all the time is to allow rural America to shrink in size. One of the reasons it continues to shrink in size is the economics we are trying to live in a rural society which becomes more and more difficult all the time.

I guess what I am trying to say is that the Gregory pumped storage facility would not be a cost to the taxpayers of America. It would be one of the smartest investments they ever made.

There were people opposed to those dams on the Missouri River. Unfortunately we have people throughout history that have opposed everything that has been good for South Dakota. There were people that objected to the Rural Electric Cooperative and that whole concept when it was created. Yet, it is the thing that really brought electricity to farms and ranches and rural homes throughout the whole breadbasket of rural America, including this State. There are people that objected to the Cooperative telephone system, yet it was the first telephone service that an awful lot of our people ever had. There are people objected to highways, people that objected to the Missouri River dams even being built, and even though we lost a lot, America gained a tremendous amount from being able to tame that river from the ravages it brought and from the benefits it brought hydroelectric power.

Once again the investment in this Gregory pumped storage facility would be an investment that is as sound as education in a young person's mind, or the healing of a sick person, because it will provide for the future cheap, low-cost abundance of peaking power, something that we have to have in an agricultural society and environment if we are to grow industrially and if we are growing agriculturally so, Senator, I would really urge at this time that Congress give serious consideration to the building of the Gregory pumped storage facility and my urging is this: I couldn't care less if the Congress and the U.S. Government builds it, if the State of South Dakota builds it, if the public power people build it, if private power people build it, or if they all build it together. The important thing to me is that it ought to be built. And ought to be soon. When construction costs go up at the rate of 15 to 20 percent every year compounded because of inflation and growth, the dumbest thing we can do is wait and continue to wait as the cost to build a facility like that doubles every 6 or 7 years. The worst scenario is to wait 8 or 9 years from now and then have to build it. Then instead of $7 million, it will be $2 or $3 billion to build and it will take us 4 or 5 years during a time we would have brownouts or blackouts as a result of peak power demand.

These are the types of things we really ask you and your committee to consider and we ask that the entire Congress—most of them probably don't care about our ETSI problem. They could care less about problems that South Dakota has, but we think it is important that you and the other Senator and other Congressmen take the message to the Congress and tell them about the unique problems we have and the fact there is a solution that is called Missouri River water.

Senator ABDNOR. Thank you, Governor. Your statement is very meaningful and we need a lot of leadership in our water future.

We are all solidly behind the Gregory pumped station and on two occasions we have almost had it in the law. We haven't had a water bill go through Congress in the last 4 years—we think this time we might get it signed by the President.

The purpose of it is to save on oil, it has got everything going for it. We are going to do our very best and your testimony will be a great help.

Also I am going to make sure that the head of the BLM sees every word spoken here today about ETSI and the ramifications, and, as you know, the environmental impact statement is out and they were good enough to give us an extra 30 days to respond. The testimony we have had today will help when it comes time for consideration.

Governor JANKLOW. Senator, there is some public confusion even in South Dakota about the powers that the BLM people and Secretary of the Interior have with respect to the ETSI pipeline. A lot of people think he either has the power to approve or disapprove of it, but, as you know, that is not the case. The whole environmental impact statement for ETSI is because they seek to run their pipeline over, I believe it is, 26 miles of BLM lands in the State of Wyoming, and then some areas, a few acres of some Indian reservation in Colorado or Oklahoma, one of the States, but the only consideration that the Secretary of the Interior really has the right to give is whether or not there will be an environmental impact of injury to those BLM lands in the event that type of thing is granted. And, it has been a very valuable thing for us, the environmental impact statement, because we have been able to look at the entire consequences and impact of the action with respect to whether or not that permit is granted, but that's the reason—if you can plug something, and we ought to be plugging the 99 people in the U.S. Senate—but the bill has been offered with respect to allowing one State not to injure another State's water resources is just a very, very important prospect and all I can tell you is, as you know, and our whole Congress knows and supports you on that bill, but we wouldn't have this problem today with respect to ETSI and, frankly, we would have been able to work this problem out a long time ago had we had a law on the books like the one you proposed back at the time when we first indicated an interest in getting a permit, because things would have been worked out at that time instead of being able to drag out for half a decade with all this indecision.

Senator ABDNOR. Do you think the majority of the States would go along with legislation like this where all the States affected by water resources had to pass judgment on it? I find some concern in giving States rights away.

Governor JANKLOW. Exactly true. Let's look at it just a second from the historical perspective we have also had.

How have we apportioned water in the breadbasket States? We get to interstate compacts; we operate now with various rivers that flow into South Dakota, the Yellowstone River and tributaries, to call those water rights quantified through various States by compacts, the procedure we have always followed is that these States get together, take a portion of it among themselves on the basis of negotiation and give and take. Once it is ratified by their State legislatures it is then submitted to the Congress of the United States, as you know, ratified by the Congress and at that point in time it becomes covered in granite and it can only be broken by the same procedure. We have been able to get along well using that.

Now, the problem is that those kinds of laws don't deal with underground water supplies. They deal with the surface waters and navigable streams and rivers of America. So, as a result we don't have that protection. I can tell you—I can't speak for the other States—but, I can tell you this: A letter that was signed by Governor Olson of North Dakota, myself, Governor Thorne of Nevada, Governor Schwinden from Montana and Herschler of Wyoming, all five Old West Regional States has asked the Secretary of the Interior to please meet with us to discuss the ramifications and problems with respect to the ETSI pipeline and ground water deletion before he approves any permit across those BLM lands.

As a result of the EIS statement, all I can tell you is that I think I can speak today from the five Old West Regional States and say at least their executive branches are darn concerned about that kind of problem and look forward to that kind of solution.

Senator ABDNOR. What kind of legislation do you think it would take to get that same kind of compact agreement?

Governor JANKLOW. I think all it would take is legislation by the Congress that says that if we are going to take some water in South Dakota to the detriment of anybody else that we have to work it out with our neighbors. It is no different than what we now do with the surface waters. It could follow the same line, same legal line that we now have with surface waters, and I really believe that's all it would take because our neighboring States and us have never had a problem, ever in working out our problems. It is only when we get these—and I hate to point my finger at outside corporations and raise the spector of that—I am saying when these outsiders come in it is very easy through potential profit and potential money to all of a sudden turn us on ourselves every now and then. That's why I am concerned that long after the ETSI's of this world are gone we are still going to have to live together. All it would take is a requirement in the Federal law that when you do anything to your neighbor's detriment they have to be consulted. It is that simple.

Senator ABDNOR. It is going to be down the road. We have got to meet this head-on and maybe quantifying amounts of water, we are talking about Indian rights, and things like this before you can plan anything long range. Industry wants to go on the reservation. Is there a constant supply of water? No one really does know and I don't know how we are going to reach that decision. Congress is going to have to face up to it, I guess.

One thing about ETSI is, there are some alternatives. They are not married to one possibility here. As long as nothing has been decided we can always hold out hopes. It seems like the impact statement has to be helpful. ETSI has to have the public relations for their image, and, someone mentioned today: Wells might be the answer that will suffice for ETSI this time around, but there may be other industries following in the States needing water and there is going to be only so much, so there is a lot of reason for taking a much broader look at this than just drilling those wells and hopefully we still have time to try to convince the right people that they should take another look at this.

Do you think South Dakota would grant ETSI a water right to the Missouri River?

Governor JANKLOW. Absolutely. I don't think there is any question but that South Dakota would grant them a water right. If necessary, it would take action of our legislature and I would use whatever powers I have as Governor to see to it that the legislature would meet to discuss those very issues and in South Dakota there is sufficient water in the Missouri River; that's the key thing. Some people say, "Could we afford up to 50,000 acre-feet of water for a slurry pipeline?" Statistics that we have, the most reliable that everybody agrees on, all sides, is flowing by Sioux City, Iowa every year is 28 million acre-feet of water a year in the Missouri. After you have deducted everything out, you still have 6 million acre-feet of water left that is being unused. Less than 50,000 acre-feet of that would be a drop in the bucket. We evaporate that much in a hot day, so it is not a lot and at the same time it would help communities in western South Dakota.

Senator, you come from west of the river and you know that community, you historically come from the Kennebec area that has had trouble with water. That is one of the reasons those communities don't grow. Those communities like Cottonwood, New Underwood, Kadoka, though they are not metropolises we need to be as much interested in them as the Sioux Falls and Rapid Citys of this world, and I think there is an alternative.

ETSI has talked to us about it. We have had discussions about it. We have never convinced them to come, but I have tried to convince them. We will fight them, but we will fight them in the courts, in the legislative halls, in the Congress, and the Wyoming legislature, on the streets, in the newspapers, and any place else that I can think of until they come to their senses and decide that's a better way to do this and hopefully they will come around.

Senator ABDNOR. Very convincing.

Governor JANKLOW. I can't convince them.

Senator ABDNOR. I think what you just said about these western towns is absolutely true.

I remember when I first went to Washington, Murdo, S. Dak. needed water for their tourist season, we were looking at some possibility of trying to pass a surface pipe to Oahe to pipe water down to their dam. I guess if more people who are not from this area knew what water really meant to a State like this, you would probably do a lot better job of selling it.

We thank you very, very much.

Governor JANKLOW. Thank you very much. You really do a public service, you and your staff, by coming here and giving us an opportunity to be heard, whether or not there's an air controllers strike. It is still expensive for the citizens of the State to go to Washington and we much appreciate it when the people we elect come to us and hear what we have to say so that you can go back and make the laws to look out for us and America's interest.

Senator ABDNOR. Let me say that every word of this will be taken down for the record and while it is only myself here this afternoon—Senator Domenici could not be here—the record will be used by the whole committee, by the staff, by other committees, by many groups that will be writing for this testimony. So, we certainly thank you very, very much.

Governor JANKLOW. Thank you.

Senator ABDNOR. We are going to go to a different subject. We are going to start out with a group that will be discussing the flood plain protection. Mr. Swanson, Beverly Halling, Frank McDaniels and Lynn Oliff, would you all come up here.

Ms. HALLING. Thank you Senator Abdnor. I thank you for coming out here. We really do appreciate your coming and I am sorry the other Senator wasn't able to be here this afternoon, but we are happy to know that he will have copies of all of these things that are printed this afternoon.

Senator ABDNOR. The comments we hear out here is on a different level than in Washington. We are hearing from the people that have to live with what we do.

Ms. HALLING. Senator Abdnor, you let me take charge of who goes first, I will let Mr. Swanson begin.

Senator ABDNOR. Everything will go into the record.

STATEMENT OF LEONARD F. SWANSON

Mr. SWANSON. Thank you, Senator. Thank you, Bev.

I appreciate the opportunity to come and testify relative to flood plain management. You have my written testimony, so I will just—as I am sure you want to keep the time to a very short period if you can—so I will make just some comments and let my written testimony stand as it is.

Rapid City, as you know, has practiced flood plain management since the flood. We have a very excellent example of what flood plain management can do and we also understand, of course, that we had a lot of help where other communities are not able to have that advantage.

However, when the law for flood insurance was passed in 1968 it gave that opportunity to all communities to supply for that community to supply flood insurance to its people if they took certain action. Those actions, of course, applying for it first and afterward they had to pass ordinances or laws restricting the uses on land. And Rapid City did take that course prior to the flood and would have followed the same things that people today have to follow without the help that Rapid City received. And, truely there will be inequities in that process, but the flood plain can be used for other things besides ranching and farming, just plain open space.

Rapid City has made use of it, as all of you I am sure know, for gardening, parks, recreation, also it can be used for such things as housing if restrictions and zoning are put on it, so that you can use it for planned unit development, for instance, or multiple dwellings where you need open space; it provides, as a matter of fact, great open space for those areas.

Another thing that I wanted to touch on, and that is that over the years you have heard the comment that dams should be constructed rather than flood plain management. Actually the reason that flood plain management in the flood insurance program came along in the first place was because they found that, that is, Congress found that history was showing that the more dams we built and the more structures that we built the more costly and greater floods that we were having. So, they felt that another means of control was necessary.

I am not against dams. As a matter of fact, I am for them but they have to be worked into the overall plan of which I think flood plain management has to be a part. So, I think the overall program that's being followed is a giant step on the part of Congress and, of course, they have had other acts or added to the act since to make it more mandatory, and it brings up a lot of arguments along the line, but overall I surely hope that Congress continues on the same path they found as far as flood plain management is concerned.

I want to make one other point and that is that one of the reasons I think that we have a great problem with it is because of rights and that all of us have an inherent right to live our own lives as we see fit. I agree with that as long as those rights do not encroach on someone else's rights, and in the case of Rapid City there were a lot of rights that were violated the night of the flood. And with that I will pass this back to Bev.

Senator ABDNOR. Thank you.

Ms. HALLING. Next we will go to Mr. Frank McDaniels, planning director for Pennington County.

STATEMENT OF FRANK McDANIELS, PLANNING DIRECTOR, PENNINGTON COUNTY

Mr. McDANIELS. Thank you for the opportunity to be here.

In Pennington County recently we have been holding public hearings on proposed flood damage ordinances for Pennington County and, fortunately today the chairman of our planning commission is here and also one of the board members, so I will make a couple of brief comments and then, perhaps, if they would have something they would like to say they will have an opportunity to do so.

The questions that primarily arise at the public hearings that we have held so far are basically two or three areas of concern to the people that have come to our hearings.

First of all there is not a clear identifiable definition of what a 100-year flood is and how it is determined, and it is very difficult to explain to someone exactly what does constitute a 100-year flood and that's one question that arises quite frequently.

Another question concerns the ability to appeal elevation established in the flood plain maps. Basically we realize that some type of engineering data is necessary, but when an individual comes in and has a lot and he is told to go back and get the necessary engineering data to prove that he is not within the boundary of the flood map, it gets very difficult because there is no way that they can pinpoint exactly what they need. So, some type of information that would tell these people specifically what type of data is needed would really solve an awful lot of problems.

Another question that continually arises is the assumption if an ordinance is adopted, can or cannot anything be built in the regulatory floodway? There seems to be some discrepancies in this and that is something that would really help Pennington County in the adoption of the ordinance if they knew specifically whether there was a prohibition in building in the floodway and if there is not a prohibition, under what circumstances could you build within the regulatory floodway?

Senator ABDNOR. Elaborate on that a little more. You say that you don't know? You don't get the necessary information?

Mr. McDANIELS. There is a clause that states basically that you cannot build in the floodway unless sufficient technical information demonstrates that you can do so.

Some people are saying that that means that if you come in and you build on pilings within the floodway that you have the right to build and other people say there is outright prohibition against building whatsoever because it is impossible to demonstrate it.

Senator ABDNOR. How do you find out who's right?

Mr. McDANIELS. That's what we are struggling with.

Senator ABDNOR. You have no way to pin anyone down to give you the answer? Who can best make that judgment? Do you want someone in Washington to make it? Locally the board ought to make it.

Mr. McDANIELS. I think the determination could be made locally but there is somewhat of a—at the national level the law isn't quite clear and coherent enough for the decision to be made.

Senator ABDNOR. Thank you.

Ms. HALLING. I told Mr. Lynn Oliff that he could go next and he said I am all heart.

STATEMENT OF LYNN OLIFF, MAYOR, CITY OF NEW UNDERWOOD, S. DAK.

Mr. OLIFF. I do have a prepared statement but I will save time and I don't want to read it either.

Pennington County hasn't adopted their flood ordinance. They are working under the emergency measure, or whatever it is called.

The city of New Underwood has adopted theirs. It has been in effect since May 15, 1980 and we have been struggling with it. We have come close to being in court a couple times because people want to bring in manure, and dirt, and different things into the floodway to do different things with their property.

At present we have got a gentleman out there who wants to put two garages onto his property and we are going to have to tell him he can't do it because it is in the floodway.

What constitutes a floodway? Rapid City in 1972 had a flood, and, I mean, they had a flood and everybody knows it.

When New Underwood gets a flood the water comes down and drains through town. It hits the creek at the bottom of town and gradually starts to creep up through town. That's our flood, 6, 8 inches of water. We have never lost a life, never had any major type of property damage in the town. What constitutes a floodway?

Twenty percent of our town is in a designated floodway. We can't develop it. It is prime area. Our town is dying because we can't do the things we need to do with it. Where does it stop? When can we be given jurisdiction to determine whether or not it is a hazard to have a structure in a floodway?

The only other option we have got is to prove mathematically that we can hold back 1.6 million cubic feet of water in a 24-hour period, which is what we say we get in a 100-year flood and the only way we can do that is a holding dam. We may never use a holding dam. We do not get the force of water that they judge floods by. So, at what point is a Federal Government going to let us make the determination as to what constitutes an economic hardship versus potential destruction to a neighbor downstream? We don't have that kind of a problem, as far as destruction, force of water flow.

But, we do have a definite economic impact on our community that is killing us. Thank you.

Senator **Abdnor**. That's a very real problem. I am glad we have that for the record.

STATEMENT OF BEVERLY HALLING, VICE CHAIRMAN, SPEARFISH PLANNING AND ZONING COMMISSION

Ms. **Halling**. I am going to be next. Sometimes I save the best until last and maybe in this case we will find out if that is true. Then we will have the other two that you suggested that you had along from the county planning and zoning commission.

Senator Abdnor, I have a written statement. Because I was told I could have only 5 minutes, I wrote this and if I read it fast I can finish in 4 minutes. If I read it slowly I can read it in 5½, maybe.

Senator **Abdnor**. Go ahead.

Ms. **Halling**. As vice chairman of the Spearfish Planning and Zoning Commission I feel that it is my duty to bring to your attention that the city of Spearfish is being forced by the Federal Emergency Management Agency to accept a 100-year flood plain map that is outrageously inaccurate.

The methodology used to establish high water marks for the 100-year flood is not accurate because they were interpolated between 10-foot contour maps and cross sections were taken at random locations 300 to 400 feet apart. The cross sections were not extended out to the boundaries that they show on the flood plain map.

What needs to be done to get an accurate picture of the topography is to have a 1-foot contour map prepared for the Spearfish drainage area. In the area north of Jackson Boulevard a 1-foot error in the map could mean as much as one block in or out of the flood plain because of the flatness of the area. This was proven when the engineers did the survey on the Schneider property. They found a difference of 4 to 5 feet in elevation. This is a very serious matter when you consider the fact that FEMA is appropriating people's property for floodway and flood plain just as surely as if it were being appropriated for a highway going through someone's property. The only difference is that in the latter you at least get the opportunity and privilege of going to court for a land condemnation proceeding and a jury awards damages to the property owner.

Those people who own property in Spearfish that has been placed in the floodway have in fact had their property rezoned from its former zoning classification to "no development floodway" without written notice or public hearings, which means without due process of law.

There are a large number of businesses in the floodway such as Taco John's, Pizza Hut, Dairy Queen, which cannot be expanded or reconstructed in case of fire, and so forth, or sold. I consider it a criminal action on the part of FEMA to put people out of business with an inaccurate flood plain map and the stroke of a bureaucratic pen.

I feel that section 202 of Public Law 93–234 is a form of Federal blackmail to people in the flood prone areas. We have all kinds of other disaster prone areas in this Nation such as tornado areas, earthquake areas, hurricane areas, volcanic eruption areas, and so forth. Why aren't these disaster-prone areas denied Federal grants and loans and forced to tornadoproof, hurricaneproof, and so forth, their property?

Right now Spearfish is being threatened by EPA on their sewer interceptor grant if they don't have a program to comply with the flood plain management standards of the NFIP, including designation and regulation of the floodway. This puts out city council in a "catch 22" situation. If they don't pass the ordinance requested by FEMA, we lose grant money for the sewer. Yet, in good conscience they can't possibly vote for a flood plain ordinance when they have engineering proof that the flood plain map is full of inaccuracies and will eventually destroy the businesses of many people, not to mention the long-term economic impact on the city of Spearfish due to the loss of revenue from devalued commercial property.

The Federal flood insurance program should be changed to a program of municipal flood insurance to insure roads, bridges, and other public facilities and should require those who want flood insurance on their private property to have to floodproof their property and let those who prefer to take their own risk with their own property do so with reasonable requirements.

I respectfully request that you instruct FEMA to do an accurate map for Spearfish before they are allowed to convert us from the energy phase of the program to the regular program with all of its stringent rules and regulations. I also respectfully request that you instruct EPA to release the grant money for the sewer interceptor so we can install a sewer system that is far more essential to the health and welfare of all of the people in the Spearfish community than the arbitrary, poorly administered flood plain program.

I am grateful that our new administration in Washington is against overregulation of people and their property. I hope they will take a good look at the Federal flood insurance program and build in some alternatives that don't require a disaster prior to implementation and funding such as deepening the channel a foot or two and building a dike along the creek.

Thank you for inviting me to speak to you about this issue. Did that take more than 5½ minutes?

Senator **Abdnor**. No.

Ms. **Halling**. Now, we will turn to Gary Richards from Spearfish and I will let him take the mike.

STATEMENT OF GARY RICHARDS, ATTORNEY AT LAW

Mr. **Richards**. Thank you. And, thank you for letting me share your time.

I am Gary Richards and I am an attorney in Spearfish, S. Dak. I am representing several clients who have property within the proposed floodway and flood plain, three of them in the audience today: Don Policky, Gary Anderson, and Robert Schneider.

Bev has covered many of the things that are covered in my written testimony and I will touch on them briefly and elaborate on a couple of them.

As she stated, the city of Spearfish has been advised by FEMA that if we don't pass this flood ordinance by September 2 we will be dropped from the national flood insurance program. Many people in the flood area want flood insurance and really should be entitled to purchase it if they so desire. Also we are threatened with a loss of commercial funding for any construction within the flood plain or floodway, and the loss of Federal grant money for the construction of the federally mandated EPA sewage plan.

The ordinance—model ordinance, I guess it is—the minimum standard that FEMA set out became available to the best of my knowledge to the city in the last 30 to 60 days, and I have gone over it as best I can in the time that I have had to look at it. And it is a vague, restrictive, and almost impossible thing to administer.

As the gentleman at the end said, "What is the floodway?" Can you build in the floodway or can you not build in the floodway? The ordinance I have says that you can build in the floodway if it does not increase the flood density or flood course.

I submit to you that you can't do anything in the floodway that is not going to in some manner increase the flood density or flood course.

Some gentlemen from the FEMA office were in Spearfish last Thursday trying to explain this ordinance to us and one of my clients, who has property in the floodway asked the man the question, "What do I do with my property now that you have placed it in the floodway?"

And the gentleman said, "Well, you can do anything you want to with it as long as you don't build on it."

I guess you have got a choice: You can pasture cows, horses, or sheep. This is the type of ordinance that they are asking us and mandating that the city of Spearfish adopt and it is a virtual impossibility. Part of the ordinance states that the purpose of this whole ordinance and the flood map is to restrict the cost of the public's money and save money, and all of these things.

I asked the gentleman from Denver if there had been any kind of a study on economic impact as to what it was going to cost to take this property out of production, destroy these businesses, reduce the tax base as opposed to dropping the creek 1 foot or diking it 1 foot. Is there any data base at all for the necessity to have the ordinance or is there any data base upon which to rearrange the flood plain map so that, like I say, by raising or diking a foot you might be able to save hundreds of thousands of dollars of valuable property from being placed in a flood plain which virtually renders it useless.

There had been none. He had no intention of doing any and that was the end of that.

I submit before any type of ordinance is forced upon a municipality and any city that has this problem, that there should be some kind of data base from which to make an intelligent decision as to whether you want to be in the flood program; if by diking you can save a lot of property. Without this information we are being told something is good for us and maybe it isn't and we don't have enough information to find out.

The ordinance restricts even the planting—the way I interpret it—even the planting of shrubbery within the flood plain where people have homes and can have homes, but if you increase the density of the flood in anyway it can't be there. If you want to add a patio or small pen storage shed outside the house to put the lawnmower in, it requires plans in duplicate with elevations and certification by a registered professional engineer that bad things aren't going to happen, including a description to the extent would any water course be altered? It doesn't define what the word "a water course" is, so I don't see that any engineer could give you the appropriate certification.

The engineering costs for something like that probably exceed the value of the proposed development.

Within the floodway any type of damage up to 100 percent of the value of the structure be determined to be total and I understand it could not be rebuilt. Theoretically, you could have a million-dollar business operating out of a $5,000 structure and if it burns down right away you are completely out of business. And this would appear to me to be a very serious undertaking, especially based upon incorrect data that they apparently have.

Now, the map that is proposed for Spearfish, the floodway map, is by FEMA's own admission inaccurate. People were up last Thursday and we pounded away on them for 3½ hours and they finally had to concede that just about everything that is suggested about their property wasn't right, that probably it wasn't, so we have an inaccurate map by the Government's own admission but one we are told we have to pass by September 2.

Senator **Abdnor**. What happens if you don't?

Mr. RICHARDS. We will be dropped from the national flood insurance program. Those people who have it will not be able to renew it. Those people who live in the floodway cannot buy it and those who live in the flood plain who do not have flood insurance and want to sell their home will be required to buy flood insurance which we cannot buy from commercial lending available for any structure or anything within the flood plain area and maybe, yes, maybe no, depending on who you talk to, the funding for our sewer plant would not be available because of the lack of a flood map.

But, since the map is wrong, and you can really stand there by the creek and look up and down and see that it is in error.

Senator ABDNOR. It seems I helped somebody once whose residence was listed in the flood plain. It reduces its resale value.

Mr. RICHARDS. If it's been in the floodway it will not be rebuilt there. If it's been in the floodway you can rebuild if you rebuild within the projected level of the 100-year flood and floodproof the bottom floor.

Senator ABDNOR. What comes after the 100-year flood?

Mr. RICHARDS. It would be the 500-year flood, but it is all based on the 100-year flood. You can put your house up on stilts, or something like that, I suppose.

But, the map is inaccurate and they are trying to get it changed. It has to be done on an individual basis. One of my clients has spent $500 on engineering costs to prove that his property is not within the flood plain and I am not too sure he has convinced anyone yet.

Senator ABDNOR. Who is going to make that determination?

Mr. RICHARDS. The people in Denver.

Senator ABDNOR. What kind of Federal action do you recommend?

You have got to end up with wise flood plain management.

Mr. RICHARDS. My point is that inaccurate maps and almost impossible to administer ordinances shouldn't be forced upon a community; and the threat of restrictions of funds.

Senator ABDNOR. I agree.

Mr. RICHARDS. We asked how to change the map first. We have to do a new study in order to change the floodway, but we don't have any money for a new study and we don't anticipate money, so you have to take the one we have got no matter how wrong it is.

Senator ABDNOR. Do the people making up these maps have any responsibility as to their accuracy?

Mr. RICHARDS. I don't know. I understand the map in Spearfish was based on a contour map and things have changed since 1961 considerably; a lot of filling, a lot of diking. I feel that the map is totally inaccurate.

What we are asking for is a breath of air to have these people not enforce these ordinances upon them until they can get them right and, No. 2, base the whole thing upon reasonably accurate as to whether it is economically feasible or advisable to enter into flood plain insurance or build a dike or something. They just come in with this 1961 topographical map and say, "There is where it is going to flood in a hundred years and you people have to do these things."

The city council is in a horrible dilemma. They are being forced to pass an ordinance that they know is wrong which would probably render them personably liable to the people whose property they are taking, or if they don't pass the ordinance get sued by people who want flood insurance and can't get it and cut off the funds from EPA, and all this is supposed to be done by September 2.

Senator ABDNOR. Trying to figure out what is reasonable requirements is hard.

Ms. HALLING. Senator, I have a couple things I would like to suggest. One thing I feel that we should attempt to repeal is section 202 of the Public Law that I mentioned earlier. It is in my testimony and let lending agencies in the area decide and use their own discretion as to whether they can lend money instead of having EPA and all these people, actually the President is the one that is supposed to declare where disaster areas are, and now we have these people putting us in a disaster situation even though we haven't even had a disaster and may never have one.

I feel if they were repealed so that they couldn't use this blackmail that I mentioned earlier in withholding funds for people for loans and mortgages like VA, FHA, FDIC——

Senator ABDNOR. If they are willing to loan money without flood insurance, that should be enough.

Ms. HALLING. If they be allowed to use their own discretion like in tornadoes, or earthquake areas where they lend money those people don't come under that discretion.

The other thing is, perhaps, there should be a Federal insurance program for municipalities and let all the taxpayers pay for flood insurance to cover bridges, road utilities, and that sort of thing that they claim they won't send anybody in here. They say only the President can declare a major disaster, yet they tell us that if we have a major disaster, as we don't have this program, we don't get any help, so Spearfish is in dire straights. They claim they won't come in, although I would question them on that.

Mr. RICHARDS. As one of my clients said, "I don't have to wait for a major disaster. This is one."

Senator ABDNOR. Well, I am trying to remember. Has Spearfish asked the Corps of Engineers to help make up flood plain maps?

Mr. RICHARDS. I am not aware of it.

Mr. MCDANIELS. New Underwood has. We haven't gotten any response yet.

Senator ABDNOR. When did you do that?

Mr. MCDANIELS. Six, 8 months ago.

Senator ABDNOR. You made the request and there has been no reply?

Mr. MCDANIELS. We got a reply and they said that when they had the time they would consider coming down and doing something for us.

Have you ever seen a floodway map?

Senator ABDNOR. No.

Mr. MCDANIELS. I will explain it very briefly. That is the big metropolis of New Underwood. All this blue is flood plain. The white area coming down through town, that 20-percent area, that is the floodway. All this water that they talk about comes down through town with no problem. It hits the railroad tracks, heads east to get to the trestle, and then has to come down here and try to get into Box Elder Creek. Then it just gradually starts to seep back when the creek can't handle it. We have no major wash factor, there is none.

Some people get water in their basements. I do on a heavy rain. What's the difference. We don't really have a flood problem. We have a drainage problem. But, we are still designated, we are obligated to carry this.

Do you understand?

Senator ABDNOR. Yes. The corps could be of assistance to you.

Mr. McDANIELS. Not only could the corps be of assistance, as you will notice in my statement we were talking with soil and conservation people about building a holding dam which would hold back 1.6 million cubic feet of water that they say that we would get in a 24-hour period in a 100-year storm. Now, the problem, plain and simple, is: How do you live with this? How can you tell people their property is condemned? How can you get the necessary revenue when people's lands are worthless? You can't justify the mill levy and the people have a legitimate complaint.

Senator ABDNOR. Have you ever had any rainfall like Rapid City?

Mr. RICHARDS. Since 1911, 1921, all we have ever had is seepage backup from the creek. We have never in the history of that community that anybody can ever remember has any type of a volume or major flow of water through that community at any time.

Senator ABDNOR. One last thing, Bev. Were you caught up in the EPA grant money thing?

Ms. HALLING. Yes. It's in your folder. I cut that out, the article, from the Spearfish Paper where we are already in the process.

Senator ABDNOR. We are supposed to be getting our act together in Washington because there has been a lot of abuses in the program, and, as a matter of fact, the community has pretty well agreed with the administration that certain things ought to be done. We are going to have problems settling on what it is going to be, but that is supposed to be an appropriate program coming out, an acceptable plan to the administration.

Ms. HALLING. Here is the paragraph on that:

> The second condition imposed by EPA is that the city, as grant administrator, provide EPA with documentation that each jurisdiction in the service area has developed a program to comply with the flood plain management standards of the National Flood Insurance program, including the designation and regulation of the floodway.

So, the money has been approved but I don't know. I guess they are going to hang onto it and we can sit there without a sewer system, without the interceptor part.

Senator, would you like to hear from those two people from the county?

Senator ABDNOR. Are they here?

AN UNIDENTIFIED PERSON. I have no comment.

Mr. HALLING. I guess they are satisfied with what they are hearing from the podium, then.

STATEMENT OF LEO HAMM

Mr. HAMM. This undoubtedly has been one of the most difficult problems to face our board, in my opinion, that we have had to deal with.

Now, there is always two sides to every issue. You have heard from the city where it would appear that everything is working well and they are very proud of what they have done and by and large there is a lot of validity to that.

However, there is also the other side that I think this panel has expressed very well today. Now, the problem that I personnally have had with this is that in Rapid City's case, and as we dealt with it or heard the information here the damaging flood of 1972 is what is now referred to as a 500-year flood. Yet, our regulations as it would relate to the problem at hand talks about a 100-year flood. To me this caused immediate concern in relationship to the problem.

If we assume that the Government has an obligation to step in and to pick up the problem in a manner that we have seen in Rapid City in 1972, then it is very appropriate that the Government regulate to prevent future problems of that nature.

However, if it was a 500-year flood, why are we talking about a 100-year flood in the regulations? This has bothered me from day one.

Senator ABDNOR. How long has it been called a 500 now?

Mr. HAMM. I think it has always been referred to as the flood of 1972 in Rapid City as having the designation of a 500-year flood. Yet the regulations that we are dealing with now speaks of a 100-year flood. This has always caused me to ponder and when you get to dealing with it so much of it is on assumption and educated guesswork that it makes it most difficult to put into a binding regulation and to affect people's lives to the extent that you are seeing what happens from the testimony that was given to you today.

Also the problem that I perceive with it, for whatever it is worth, and you in your comments and questions to our planning director was asking who and why and what. The burden of proof is entirely on the individual. Perhaps that's as it should be, but this, perhaps, also is part of the reason that neither the county nor the individuals in Pennington County's case, has severely, let's say, attacked the maps they were given.

It costs a lot of money, Senator, to prove your case in this instance and it appears to us that the decision, or at least, I should say, it appears to me the decision in this matter does not lie with elected officials but in fact will lie with Denver or Washington's interpretation of that map.

Now, the ordinance, as I understand it, will cause the individual to be able to do certain things within that floodway providing he does certain things and meets certain criteria. But, there again he has to prove certain things beyond reasonable doubt and the burden for doing this will be tremendously expensive, in our judgment, and that sole burden for doing that is put on the individual. This I am not sure is appropriate if in fact the logic for the thing is for the basic public good. As you can envision there would be a lot of folks involved in this and be required to give up something basically for the good of the public.

Like I had said, this is a very difficult problem for me as a commissioner. We have pondered with this, fiddled with this. Most recently we have sent a request to Denver that certain areas be deleted from this and here again we are getting into a most inconsistent area because we have been supplied a map on a particular area of our county that now is being requested to be in the regulations. What obligation do we as local elected officials have in those areas of the county where there is no map? What is reality? Is there development occurring in other drainages, other floodways? But, they will not perhaps receive the same consideration.

The difficulty I have had from the onset in this, and even, I think, the difficulty we have observed, perhaps, in Rapid City if they were to take some criticism would be the inconsistencies and our inability to treat our people exactly alike. I resent having to make this decision that will affect people's lives so adversely based on guesstimates, somebody else's implications and the fact that we do not have the right here to exercise local judgment, to subject ourselves really as taking us out of the political arena, but there is a heck of a lot of problems that I am most reluctant to put an OK on when there has been so many things pointed out having been wrong with it.

I think that's probably enough for me. I thank you very much.

Senator ABDNOR. Thank you. In all our hearings that is the first time we have run into this. It will be listed in the record.

Ms. HALLING. On behalf of all of the members of this panel that testified today we thank you for taking the time to hear us. We do have to try to figure out a way for some immediate relief for Spearfish and maybe we can talk to you about it at another time.

Mr. SWANSON. May I say another thing?

Senator ABDNOR. If it is not too long.

Mr. SWANSON. On the Rapid City 500-, 100-year flood that is in my testimony, actually it was greater than a 100-year flood. Whether it was a 500-year or not, we don't know, but the thing is that the land that was covered was under that flood and what was actually calculated as far as 100 almost coincided as far as land area covered was concerned.

Also on the matter of hearing, Rapid City did have to have a hearing on theirs. We have since had other flood plains that we have put into the program and we have had to have hearings on them, and I am surprised that the city of Spearfish did not have, was not required to have a hearing. They should have a hearing on it and answer some of those questions that they brought up.

[An attachment to Ms. Halling's statement follows:]

1645 Third Street
Spearfish, South Dakota
August 10, 1981

To Whom It May Concern:

This case illustrates the loss of property rights through the exercise of state police powers (the right to regulate in regard to health, safety, welfare, and morals) by all levels of government--federal, state, and local. There are three phases to this story. First, I owned property in the county subject to easements of prior record. There were no zoning restrictions. Second, my property was annexed to the city of Spearfish and became subject to city zoning and restrictions in the Uniform Building Code. Third, the property came under the Federal Flood Management Program and now has so many restrictions there isn't any use left. My reasons for owning the property have been usurped by the government.

In January 1968, I purchased six and a half acres of land bordering the city limits of Spearfish in Lawrence County. There were no zoning restrictions so I could have developed the property any way I chose. I could have put in a gravel crushing business, a feedlot, a campground, a museum dipicting a homestead with goats, lambs, and horses as attractions along with many other possibilities. Because I care about my neighbors, I decided on a small mobile home park (sixteen spaces) known as Kampus Court, a garden, some vacant land to be used for future development, and a bird sanctuary. Because my land includes Spearfish Creek, many area residents use the area for recreation, such as swimming and fishing.

My purpose for developing a mobile home park was to create a business and an investment. Before developing the park I asked the city to annex my property so I could have city water and sewer. Their decision was not to annex because their sewer facility was over loaded. After constructing the mobile home park there were about four and a half acres of vacant land which I planned to develop in the future.

In 1975, the city annexed my property, zoned it commercial, and promised I could expand my mobile home park if I chose to do so. My property was now subject to city zoning, and the Uniform Building Code. These restrictions began to limit the use of my property. No mention was made by the city about being in a voluntary Flood Management Program, at the time the property was annexed.

Then Black Hills State College with the help of the National Guard, filled the floodway upstream from my property on the opposite bank. The filled area was to be used as a parking lot and flood protection for the property across the creek from my property. I question the legality of using my tax dollars to fill a natural drainage area on one side of the creek to the detriment of property on the other side. This fill has already caused flooding and property damage during the winter of 1979, when the creek froze from the bottom up and overflowed on north Ames Avenue. Art Jones, who is a member of the city council and Director of the Physical Plant at Black Hills State College, told me they filled the natural drainage area for a parking lot as well as to protect people on the other side of the creek from flooding. By filling the natural drainage area the State created a dangerous situation. There is another question about the legality of their actions because the government was already participating in the voluntary phase of the Flood Management Program.

In addition, the city has all the engineering plans drawn to construct a storm sewer through Rushmore Street to the creek. This would dump water into the creek above my property which now drains naturally north of my property.

In September 1979, the city accepted a Flood Insurance Rate Map as part of the Flood Management Program. This map, which the city accepted by default due to a federal time limit, placed a large amount of property along Spearfish Creek into a Floodway. Property owners were unaware of the creation of a Floodway because the local newspaper showed the map as Floodplain with no distinguishing Floodway catagory! Apparently no city official realized there was a Floodway, because in 1980, the city changed the zoning on my property from Commercial to R-3 Residential, when actually the zoning was already Floodway according to the Flood Insurance Rate Map. I feel this Floodway "bombshell", without prior notice to property owner's before acceptance of the map, is inexcusable action and illegal.

At any rate, the change in zoning for my property from Commercial to R-3 Residential further restricted my options for developing my vacant land. It was now restricted to the purpose for which it was least suited.

Then in April 1981, I was informed that the city had a Flood Insurance Rate Map designating most of my property as Floodway, and that the city was in the process of adopting a Flood Ordinance which was to become effective September 2, 1981. I was told the map could be challenged, at property owners expense, and if found in error could be changed through an appeal procedure. I hired engineers to check the elevations on my property. According to their findings, the Flood Insurance Rate Map isn't accurate. Most of my mobile home park is out of the Floodway and out of the 100 year Floodplain. The FIRM map showed most of my park in the Floodway. However, about four acres of my vacant land is in the arbitrary Floodway.

According to the proposed Flood Ordinance, the word "development means any man-made change to improved or unimproved real estate, but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations located within the area of special flood hazard." The Ordinance states that all development in the Floodway is prohibited. There can be no increase in density in the Floodway. This means I can't even plant a tree on my four acres of vacant land.

Virginia Motoyama and Mr. Hebb, from the Denver Office of Flood Management, explained the Flood Ordinance to city officials and interested residents on August 6, 1981. I asked Mr. Hebb to name one suitable use for which my vacant land would qualify under this program. He said agriculture, but the land is mostly gravel and not suited to farming. He then gave me the ridiculous suggestion of a parking lot. The fact is, that under all these restrictions, there isn't any use for my property.

I feel my property has been appropriated (set aside for a specific purpose: Floodway) by the government as directly as if it were used for a highway or airport runway. Mr. Hebb said the courts and court precedents do not agree with me.

Next, Mr. Hebb made the point that when Spearfish adopts the Flood Ordinance "everyone can buy flood insurance". However, since my mobile home park investment is in roads, utility lines, yard lamps, lawns, and etc., I am not elligible for insurance.

Also, I will no longer be able to operate my mobile home park as I have in the past. I had been told my park could operate under the "Grandfather Clause". However, the Flood Ordinance says "all mobile homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors". This will be a nuisance, an expense, and objectionable to people because of damage done to the roofs of their mobile homes.

For twelve years I have prevented people from using the vacant land for noisy motorcycles, snowmobiles, or other objectionable activity. People have used the land for fishing, swimming, hiking, and recreation. Now my reward is that I can no longer be trusted to manage my property.

In conclusion, I can say that I have lost my property rights and my investment of time, money, taxes, and other expenses associated with buying and owning this property. It is abvious that the government has complete control of my property. I think they should be obligated to pay for my lost investment.

Sincerely,

Robert R. Schneider

Robert R. Schneider

1645 3rd St.
Spearfish, South Dakota
July 14, 1981

South Dakota Congressional Delegation
Washington, D. C.

RE: National Flood Insurance Program

This is an appeal to our Congressional delegation for help concerning abusive regulations and requirements as a result of the National Flood Insurance Program. By using the federal and state police powers (regulating in the name of public health, safety, and general welfare) the government has entrapped property owners into a situation where they have lost the privileges of ownership which historically have been the reason for ownership of property.

When Spearfish "voluntarily" entered the Federal Flood Insurance Program, the people didn't know the rules and regulations which the program entailed, nor were property owners told about the adverse consequences on their property rights before they were put into an arbitrarily designated flood plain. Also, some of the rules have been changed since the first public hearings were held in 1974. For example, the community was informed that not one dollar of federal money could be loaned in the city of Spearfish by any lending agency. This was a serious economic threat because the Federally-backed lending agencies were the main source of money. Then in April, 1981, we learned at a planning and zoning meeting that the lending agencies could now "use their own judgement" in making loans. This lending policy seemed to be the main reason for "voluntarily" getting into the National Flood Insurance Program. Another reason was that flood insurance would be available to those who wished to purchase it. This isn't true. It is available only to those eligible.

Since "voluntarily" entering the program a flood insurance rate map has been created and accepted by the city by default. In other words, the Federal time schedule made it automatically effective if the city didn't take any action. This meant that nothing was published in the papers or legal notices about the creation of any floodway and accompanying zoning changes. Then in April, 1981, at a city planning and zoning meeting, the property owners learned that the Flood Management Program had created not only a flood plain, but a floodway, a 100 year flood plain, and a 500 year flood plain. This map, which isn't even accurate, will be used by the city to determine which property owners can develop their property by meeting certain federal requirements and which ones can no longer develop their property.

People who owned property zoned commercial, residential, and etc., suddenly discovered their property was now zoned floodway, or some other category with a maze of regulations and restrictions attached to it. This flood ordinance is another "catch 22." We are again being forced to accept something without even the opportunity to read it first. There will be no choice. The city can write the flood ordinance any way they want to, as long as it meets all the federal requirements. To make the process of writing the ordinance easy, a seminar was held in Denver in which they gave our city representative a model ordinance along with an explanation of how to fill in the blanks and complete it. We doubt that any "legally binding contract" was ever written and accepted this way except by a government usurping its powers or by a Mafia type organization. You know, "this is an offer you can't refuse."

As a property owner I feel, first, that if property is going to be appropriated by the government it should be done according to due process with just compensation. Second, I feel it is not fair to Spearfish to not be eligible for disaster assistance without this program when other places that didn't volunteer to go into it can receive aid. Why not devise a program for people who live where there has been a tornado or is possibly going to be a tornado. Why not have them buy tornado insurance and require them to tornado proof all structures so the federal government doesn't have to give them disaster aid. The same principle could apply to earthquakes, volcanic eruptions, and nuclear disasters. Third, this program of land use planning by the federal government is unconstitutional and the Flood Ordinances are an abuse of the government's regulatory powers. I was told by one city official that this is the way these social programs work: Some people just have to sacrifice their property for the benefit of the majority.

One alternative to the present Federal Flood Insurance program would be to design a program of municipal flood insurance to insure roads, bridges, and public facilities, and let everyone in the community pay the costs and share in the benefits, rather than taking property from some individuals so others can buy flood insurance.

Sincerely yours,

Robert R. Schneider

Robert R. Schneider

We the undersigned agree with the statements and feelings expressed in this letter and urge you to take action in regard to this matter.

Name	Address
[illegible] Spearfish Realty	[illegible] Spearfish, S. Dakota
[illegible] Follette - Ski Cross	[illegible]
Vicki Fagust Minnehaha Motel	430 W. Kansas Spearfish, SD
[illegible] Fagust Minnehaha Motel	430 W Kansas Spearfish, SD
[illegible] Ericsson Antler Motel	517 W. Jackson Spearfish S.D.
Karen Ericsson Antler Motel	" "
Florence Justice	921 Canyon Spearfish S.D.
William Justice	921 Canyon Spearfish S.D.
Louis T. Tollefsrud	1711 3rd Spearfish, S.D.
Patricia Christensen Magic	Wand Car Wash, Spearfish, SD
Randall Christensen	833 3rd " " "
Kathleen Schneider Kampers Court	1645 3rd St. Spearfish S.D.
Beverly Hallen Best Western Sundown	346 W. Kansas Spearfish S.D.
[illegible] Best Western Sundown Motel	346 W Kansas Spearfish S.D.

Queen City Mail

Spearfish, Lawrence County, South Dakota
Wednesday, August 12, 1981 Number 32

EPA approves sewer interceptor grant

by Art Mathieson

The U.S. Environmental Protection Agency has approved 75 percent federal funding for a $109,870 sewer interceptor to Christensen Drive and an $89,398 line to West Subdivision in lower Spearfish Valley, but under conditions that are likely to make some people unhappy.

In approving funding for a 5,300-foot, 8-inch gravity line up Christensen Drive and a 4,000-foot, 8-inch line with a 2,000-foot force main and pump station to West Subdivision, EPA attached two main stipulations.

One is that the areas be incorporated into the city — Christensen Drive — or into the Spearfish Valley Sanitation District — West Subdivision. While West already has been annexed into SVSD, no action has been taken by the city on annexing Christensen since two of the three landowners there — Bryce Christensen and Allen Czywczynski — opted against petitioning for annexation. The third, Clarence Riggs, has asked that his property be annexed so that he can obtain city sewerage.

The second condition imposed by EPA is that the city, as grant administrator, provide EPA with documentation that each jurisdiction in the service area has developed a program to comply with the floodplain management standards of the National Flood Insuranee Program, including the designation and regulation of the floodway.

In the case of Christensen Drive, responsibility for the program would rest with the city, now in the throes of developing its own flood damage prevention ordinance. In the case of West Subdivision, the responsibility is Lawrence County's, according to EPA, since the county administers land use policy within the sanitary district. Under a cooperative arrangement, the county and city of Belle Fourche and now working with the U.S. Army Corps of Engineers to develop a floodplain map of lower Spearfish Valley.

The decision apparently means that, with city sewerage, development would be permitted in lower Spearfish Valley except within the floodway which has yet to be designated.

A third grant condition requires the city and county to pursue nonpoint source control measures by adopting erosion and sediment control ordinances.

EPA also advised the county to enforce strict adherence to state codes on individual disposal systems, implement a floodplain program and develop controls over sources of stream pollution.

The federal agency recommended that the county continue to approve properly designed septic systems in the Higgins Gulch and bench area, but prohibit septic tank installation in Spearfish Valley areas where the groundwater is within 10 feet of the surface.

As background to its decision, EPA noted that the coliform bacteria found in the Belle Fourche water gallery from 1977 until 1979 could be the result of, one, septic systems in the area and, two, manure from a livestock confinement area at the mouth of Higgins Gulch contacting gulch water where it sinks into the alluvium.

With respect to Christensen Drive, it noted that aerial imagery had shown a large septic system servicing Chris' Campground to fail during summer months due to overloading of the leach field. It also noted test results indicating abnormal fecal coliform counts at a spring in an intermittent stream that drains the area and additional samples from a well at the Miller Ranch confirming groundwater contamination in the drainage area.

Among the conclusions drawn by EPA:

•Sporadic groundwater contamination of the Belle Fourche infiltration gallery is the result of nonpoint sources entering Higgins Gulch and Spearfish Creek and septic tank systems in the West Subdivision area.

•Surface and groundwater in Christensen Drive have been contaminated by septic tank systems and Chris' Campground.

•Septic tank systems are acceptable in the Upper Higgins Gulch area, but not in the Spearfish Creek alluvial valley, particularly near the Belle Fourche infiltration gallery.

Finally, the decision charges Belle Fourche with being responsible for the quality of water it serves to its consumers.

"Since there is no longer an opportunity to protect the entire watershed," said EPA, "the city must rely on protecting as much of the area around the gallery as possible and conduct vigilant monitoring of water quality."

Added the agency's Denver office, "Unfortunately, the city of Belle Fourche can anticipate a decline in water quality unless nonpoint sources are controlled upstream and may need to provide further treatment or find another source of water."

Queen City Mail

Spearfish, Lawrence County, South Dakota
Wednesday, August 12, 1981 Number 32

Landowners fed up with fed flood rules

by Art Mathison

Dissatisfied at the outcome of their meeting with representatives of the Federal Emergency Management Agency Thursday, a group of landowners with property shown as lying within the city's floodway plan to take their grievances to Sen. Jim Abdnor in Rapid City Friday.

Abdnor is to be in Rapid City with other members of the Senate Subcommittee on Water and Natural Resources to discuss South Dakota water projects, including the controversial ETSI coal slurry pipeline proposal. With him are expected to be Sens. Steven Symms (R-Idaho) and Pete Domenici (R-N.M.).

At the heart of the property owners' grievance is the federally designated floodway from which any construction would be barred that would increase the density or course of a flood, should the city opt to participate in the regular phase of the National Flood Insurance Program.

The insurance program is an outgrowth of the Flood Disaster Protection Act passed by Congress in 1973 to allow homeowners to insure themselves against flood damage. A voluntary participant since 1976, Spearfish has until Sept. 2 to pass a flood damage prevention ordinance or be dropped, at least temporarily, from the program.

FEMA representative Virginia Motoyama and Lyle Hebb from the agency's Denver office heard property owners and their attorneys repeatedly contest the accuracy of the floodway and floodplain maps, prepared under FEMA contract by a Casper, Wyo., engineering firm.

Hebb at first stoutly defended the accuracy of maps saying, "Quite frankly, I believe the contractor did a pretty good job. The map is pretty accurate, even though they used an old contour map."

Near the end of the meeting, however, he admitted that some property owners might have better data than that used to prepare the floodway map. And Mrs. Motoyama said she intended to find out what criteria Washington would require for granting Spearfish a 30-day extension on its ordinance deadline. The extension would allow property owners to gather technical data for further challenging the map's accuracy.

Without the extension or passage of the ordinance, the city would be suspended from the program. That would mean that homeowners in flood-prone areas would not be able to buy federal flood insurance nor would federal dollars be available to support any construction within the 100-year floodplain — the area that would be inundated by a level of flooding with a 1 percent chance of occurring in any year.

Motel owner Beverly Halling charged that the floodway map was based on the study of only a small area using 1961 USGS maps. Hebb denied the first charge, but agreed with the second.

Contractor Don Nichols challenged the accuracy of the map on the basis of the 1965 flood, when water ran down Third Street, not where shown on the map.

Nichols argued that it should be up to the city to provide an accurate floodway map, but Mrs. Halling said "it should be up to the federal government that made the map." Hebb replied that it was up to the individual homeowner to prove the map inaccurate on the basis of hydrologic data.

Robert Schneider, a mobile home park owner with property in the floodway, noted that an engineer he had hired for $400 had found the floodplain as depicted on the map to be at least 200 feet in error.

Acknowledging that he has three or four acres within the floodway, he asked, "What can I do with those three or four acres?"

"Almost anything, provided you don't put a building in there," replied Hebb. But that turned out to be virtually nothing.

Schneider said he bought the property without being aware of floodway restrictions and charged that the land was being "appropriated as directly as if appropriated for a highway."

Noting that flood insurance doesn't cover utilities, he asked Hebb, "If you owned that property, would you be a little upset?"

"Probably," was the reply.

"What's the answer for me?" asked Schneider. "Hasn't the government purchased land in a floodway? I don't have to wait for a catastrophe — it's happened to me."

One property owner, Fred Brady, targeted his comments at the city, rather than the map. Brady charged that the city and college have dumped 50,000 tons of material into floodway areas.

"I would say that a 4,000 second-foot flood today (the size of the 1884 flood) would cause much more damage than the 6,600 second-foot flood did in '65," he commented.

Gary Andersen, owner of a restaurant shown as lying within the floodway, put the dilemma over federally backed construction loans in perspective when he observed, "If we don't go along, we have no alternative for funding unless we go to a private individual."

Hedd put the flood-prone property owner's plight in perspective when he said, "If the city doesn't enter the program, then nobody can buy federal flood insurance."

And Mayor Joe Jorgensen put the city's plight in perspective when he noted that, by not participating, the city could be jeopardizing long-term federal disaster assistance loans and probably would be ineligible for any further federal grants from the Farmers Home Administration or Environmental Protection Agency.

Jorgensen also expressed a word of concern about the prospects of FEMA doing a more detailed study of the city's flood-prone areas, a study Hebb indicated is not likely to happen.

"I'd hate to think of what that map will look like if they really study the valley," said the mayor, later adding, "I suspect if we had another floodplain study, the floodway area would be expanded."

Senator ABDNOR. Thank you.

Each of you identify yourselves and we will let you proceed.

STATEMENT OF FRED EISERMAN, MANAGER, ENVIRONMENTAL ACTIVITIES, ETSI PIPELINE PROJECT

Mr. EISERMAN. Ladies and gentlemen, Senator Abdnor, my name is Fred Eiserman. I am with the energy transportation pipeline project and I am the manager of environmental activities.

EA very much appreciates the opportunity of appearing before this Senate Water Resources Subcommittee hearing. While I am submitting a written statement for the record, I would like at this time to discuss a few things that I have jotted down here on this oral presentation.

My appreciation for having this opportunity to speak with you today derives from two sources. First, of course, is to represent ETSI, who long has been an active participant in developing and solving some of the water issues that have been and will be discussed at this hearing.

My second source of appreciation comes from more than 30 years of participation toward water issues in the West and more specifically in Wyoming. And of these two positions, let me assure you that the latter is the most important to me.

I do not consider myself an outsider. I anticipate living and dying in Wyoming, the good Lord willing. My sons will also live out their lives in Wyoming.

I will tell you where I am coming from in this latter point. My professional education is from Utah State, an institution with a rich history of academic participation in water development in the intermountain West.

I have become very much involved in water development on a personal and people basis. I have served on a Wyoming legislative interim committee on streamflows. I have served more than 10 years on the board of directors of the Wyoming Water Development Association. I have worked with such industrial entities as Amoco, Texaco, and United States Steel on solving water pollution problems.

Currently, I am vice president of the Wyoming Wildlife Federation. I also serve as director of the Red Butte Water and Improvement District. I am a water user and a member of the Deaver Irrigation District of Big Horn County, Wyo.

With this background I feel no stranger to issues in the West and I sincerely respect the concerns of the people of South Dakota and Wyoming on these issues. With this background I feel I am no stranger to water issues. The comments I am presenting, Senator Abdnor, will essentially address the issues from this personal perspective. In fact, I believe some of the concerns that I am going to express were expressed by Governor Janklow, and I think that some of the approaches that I am going to take are some of the same thoughts that Governor Janklow was expressing.

We all know that the Madison formation, an aquifer which extends over approximately 180,000 square miles of the western part of this county, is capable of yielding large quantities of water for energy, industry, and municipalities.

In a recent publication of the U.S. Geological Survey, titled "Synthetic Fuel Development and Earth Science Considerations," it is noted that it might be desirable to obtain ground water from the Madison for energy-related purposes because economic considerations make this source of water too expensive to develop for irrigation. ETSI volunteered to use Madison water for this very reason.

The U.S. Geological Survey further observes that there may be a few legal impediments to the development of such water resources for energy purposes and, therefore, a minimal need for trade-offs of present water use. The trade-offs of present water use has been a theme that ETSI has addressed from the beginning.

The development of the Madison formation in Wyoming by ETSI required the approval of the Wyoming State Legislature and as a result a number of important documents were produced that will require two considerations that are rather unique in the development of an underground aquifer. In fact, as far as I know, there is no place in the intermountain region where there is more stringent requirement of mitigation and monitoring imposed on industry, and I favor these requirements for all industry and municipal uses of underground aquifers.

Senator ABDNOR. Let me ask you: These requirements were all placed on you by Wyoming, right?

Mr. EISERMAN. Yes, sir.

Senator ABDNOR. My State has nothing to say about them. All the guarantees you give are as to Wyoming.

Mr. EISERMAN. That's right.

Senator ABDNOR. You give the same assurances you give Wyoming that affects us.

Mr. EISERMAN. Senator, as I progress through my presentation I will hit that point.

Senator ABDNOR. Very good.

Mr. EISERMAN. The ETSI project requires affirmative action on both monitoring and safeguarding existing water users and these are described in the following documents: Wyoming State engineer's permits, Enrolled Act No. 10 of the Wyoming State Senate, third party beneficiary agreement with the office of the Wyoming State engineer, mitigation requirements noted in the final environmental impact statement.

Now, as a result of these documents, if existing water users are affected by the project, ETSI is committed to the following: Deepen existing wells or drill new wells and pay the incremental pumping costs; provide an alternative source of supply of equal quantity and quality water; terminate its pumping if remedial measures are unsatisfactory; and, as a condition of the State permits and right-of-way grant, develop and maintain a grid of monitoring wells and stream gaging stations.

Senator ABDNOR. That's great for Wyoming. But, what about South Dakota?

Mr. EISERMAN. As I progress through here I will bring out the fact where we would like to cooperate with the State of South Dakota. I am sure there is not a person in this room who does not realize that the Madison Formation will be developed. However, to develop and manage this water resource with foresight, scientific information must be obtained. This is why I consider the ETSI project to be extremely important and beneficial to the residents of this part of the West.

As the Governor indicated, we are developing water at a pell-mell pace and I think that we are at a period where we need scientific information, and I believe that the ETSI project offers that.

ETSI will be required at its own expenses to lay out a grid of monitoring and observation wells that will extend from Edgemont, S. Dak., to the northern part of Crook County. There will be no less than 8 and possibly 11 of these wells. In addition ETSI has agreed to maintain stream gaging stations on Sand Creek near Beulah; Coal Spring Creek at Buckhorn; Beaver Creek at Mallow Camp; Stockades-Beaver Creek near Newcastle; Cascade Spring Creek in Hot Springs County, S. Dak.; and the Belle Fourche River in northeastern Crook County, Wyo.

The date that will be obtained will be public information and information of this kind is desperately needed. Let me site a few examples from the environmental impact statement to make the point.

On page 3-12 of the "Well Field Hydrology Technical Report":

> Little is known about the potentiometric surface of the Red River, Minnelusa and Inyan Kara Group aquifers in the vicinity of the Black Hills. The USGS, as part of its Madison Limestone Aquifer Study, has mapped the freshwater potentiometric heads of the Red River Formation and aquifers of the northern Great Plains. These maps are not adequate for defining the vertical potentiometric gradients in the Madison Aquifer System.

Going on to page 3-43 of the same publication, it describes the historic use of the Madison aquifer system. In the first paragraph it notes that 130 Madison wells are known to have been drilled and developed in the eastern Powder River Basin and Black Hills area, and then it goes on to say:

> Significant amounts of Madison ground water may also be produced in Pennington County, S. Dak., where more than 40 Madison wells exist. But, production data from these wells are not available.

One hundred and seventy wells and no information to determine effects.

On page 3-55 of the "Well Field Hydrology Technical Report" on the effects of historic withdrawals it says:

> No continuous long-term measurements of the Madison potentiometric surface have been made and periodic measurements from the Madison production wells are rare.

Finally, in the final environmental impact statement, on page 5-29, it says that the ETSI project operation will provide extensive new scientific information on the Madison formation.

Now, I feel we just can not go on developing this underground resource without extensive monitoring programs and information thus produced. Without the ETSI project, legislatures at both State and Federal levels will have the responsibility of providing millions of taxpayer dollars to establish the same type of monitoring well systems that ETSI will provide free of charge. This information, plus safeguards that this project offers to other water users makes the ETSI project a potential catalyst for a well-organized water management development program, not only for underground water resources, but with the potential for the development of surface water resources.

Now, I'd like to look at the ETSI project and potential development of surface waters, which will require a brief review of ETSI's relations with the State of South Dakota. I am not going to go into this in any great detail, but I will enter this as evidence into the record of every letter and every memorandum that's been written between ETSI and the State of South Dakota and other entities responsible for water use in this area.

At Oahe, now, ETSI's relations with the State of South Dakota began in 1976 and 1977 on a public information program which was undertaken in cooperation with the South Dakota entities, and I would like to back up on that.

Actually the relationship began in 1973-74. In the 1976-77 public information program these entities were addressed: Department of Natural Resources Development; Bureau of Reclamation, Huron office; Black Hills Conservancy Subdistrict; West River Conservancy Subdistrict. The objective was a State-granted right to ETSI that would provide a water right for 20,000 acre-feet of the 18,500,000 acre-feet of water that flows out of the Oahe Reservoir. The legislature passed the bill, the Governor vetoed it, the House overrode the veto, the Senate failed to override by one vote, thus the measure failed.

In the meantime ETSI continued to develop the Niobrara well field in accord with Wyoming law. When Governor Janklow took office, ETSI reconfirmed its interest in the development of the West River Aqueduct and subsequently supported its interest by offering a schedule of standby feed totaling $15 million.

I quote from a key paragraph from that proposal letter of September 16, 1980:

> Therefore, if the ETSI project proceeds on schedule, we currently visualize South Dakota will receive $15 million which it can use for water development purposes even if ETSI never uses a drop of Oahe water.

The full letter is part of the record of these hearings, exhibit 1.

The offer was rejected by South Dakota because of the fear that its agreement might inspire Federal intervention in States' water rights. ETSI's analysis is to the contrary: Failure to put Oahe water to beneficial use will, in our opinion, inspire Federal intervention on the basis of obvious national need.

During the field hearings on the draft EIS for our project, ETSI went on record reaffirming our offer in the hopes that South Dakota would eventually resume negotiations to implement the concept on a practical schedule. Thus, the Oahe concept remains just that, a concept. Positive action from South Dakota is all that stands between translating this proposal into a plan for action.

Now, also during the ETSI EIS public hearings, ETSI voluntarily and formally extended to South Dakota essentially the same protections offered and accepted in Wyoming.

Finally, ETSI agreed to modify the terminology of the contract so that it protects not only the pumpers, but all beneficial users of the Madison. This stipulation was made as a direct response to concerns expressed during a hearing on the DEIS at Rapid City, S. Dak. The object of these protections is to cooperate with Wyoming and South Dakota in establishing a workable water management system of a useful resource rather than mismanagement with the uncertainty of fear.

Now, for example, the forecast data used in the EIS shows that if Wyoming failed to develop its water due to a misunderstood computer model that the same simulation program would then show that Edgemont is causing a drawdown in the potentiometric head of the Madison under Wyoming. One wonders why other investigators have been silent on this significant factor. It becomes obvious, doesn't it, that cooperation based on scientific data and rational management offers a better way to live in harmony than worry about uncertainty.

ETSI prefers the route of rational management and harmony, and this has historically been ETSI's preference. As recently as June 1980, Frank Odasz, an ETSI vice president, conferred with Mayor Zeimet, Councilman Brown, and their colleagues of Edgemont, S. Dak., regarding a site for a well to be drilled at ETSI's expense. Two sites were selected. ETSI is ready to proceed with the well one year in advance of its pipeline construction. A copy of ETSI's commitment is also attached to the record of this hearing as exhibit No. 2.

In summary, ETSI has and will continue to cooperate in good faith for the mutual benefit of any city and town in western South Dakota, eastern Wyoming and the States of South Dakota and Wyoming and the Nation.

I thank you very much.

Senator ABDNOR. Thank you.

We will go ahead with Mr. Case.

STATEMENT OF HARVEY LEE CASE, WATER RESOURCES DIVISION, U.S. GEOLOGICAL SURVEY

Mr. CASE. Thank you, Senator. It is a pleasure to be back in South Dakota.

I am Harvey Lee Case with the U.S. Geological Survey Water Resources Division. I just recently transferred to Albuquerque, N. Mex., but for the last 3 years I was in charge of the water subdivision here in Rapid City. I have no prepared statement to enter into the proceedings, but I am familiar with the general hydrology of western South Dakota.

Senator ABDNOR. You worked here?

Mr. CASE. For the last 3 years here, sir. I worked in western South Dakota for the last 3 years and I appear before you today just to answer any questions you may have concerning the hydrology of the area or Geological Survey activities here.

For example, as a nonregulatory factfinding agency, the Geological Survey and Water Resources Division, in particular, has several programs underway here in western South Dakota right now.

There is a High Plains Regional Aquifer study underway and has been underway for the last 3 years here where we are looking at—I am sure you are familiar with—the Oglala Formation and we are looking at the South Dakota end of it.

Senator ABDNOR. I went down to Santa Fe the other day and got the whole load.

Mr. CASE. We have the Northern Great Plains Regional Aquifer analysis which has been underway for the past 3 years and is just winding down, and that study has some bearing on this case, I believe, because we have been looking at trying to describe the geometry of certain aquifers in western South Dakota, in the entire State, and the Black Hills in particular. We have been looking at describing what the water levels are, what the quality of water is like in each of the aquifers, and we have been trying to—one of the big purposes of the study has been to notice and indentify shortcomings and make recommendations for future studies.

Now, the Northern Great Plains study has been looking at rocks that are very, very old. It does not include the Madison. It starts above the Madison and includes the Inyan Kara Group, Lakota and Fall River units.

The Madison study has also been underway for the past few years in this State. I haven't been directly involved with them, but we have also had people in South Dakota supplying data to the regional people who are preparing the major report.

Senator ABDNOR. Do we have enough information at this time to have any concrete facts?

Mr. CASE. We have a number of facts and all of the data that we have obtained as part of all of these studies has been made available to the BLM and to Woodward-Clyde, the consultants who did prepare the impact statement.

Just a couple more things. I guess the last thing is, I would like to clarify, if I could, the role of the survey in the whole ETSI impact statement issue, and, that is, that we have served as a technical advisor to the BLM on hydrologic matters. We have been advising them, giving them our views on things from the start. We have made all our data available to them and consultants from the start.

Senator ABDNOR. Would you recommend using surface water rather than the Madison water for the slurry system?

Mr. CASE. Senator, you are not really going to force me to answer that?

Senator ABDNOR. How about you? If you were being the judge in this thing would you recommend—taking everything into consideration for a slurry system—going to Madison over the water from Oahe, for instance?

Mr. EISERMAN. Once again, let me reiterate where I am coming from on that.

I believe the Madison Formation—everybody admits that the Madison Formation is a vast aquifer and it is being used and will continue to be used.

My concern, Senator, is this: With the ETSI project, there is a monitoring well system that will be required to understand aquifers. I believe that if ETSI did not use that aquifer, it would continue to be used and, hopefully, at some place, there would be some regulation where a monitoring system would be required where we could learn just a little bit more about the Madison than we have right now. Everybody that I have heard testify indicates that there are some serious plans in that, yet we go on adjudicating water and without any real scientific information on how much water we have to adjudicate, and I think, with the ETSI project, we have a failsafe position: If you get into synfuels, you develop cities and towns, there are no alternatives; with the ETSI project, I think, as Governor Janklow indicated, there are some alternatives and to me to develop the Madison with the coupled responsibility of getting scientific information, is a valuable consideration when you consider whether you use the aquifer in the Niobrara well field area.

Senator ABDNOR. I agree when you use that aquifer, it is a gamble on what is going to happen. You have got to consider the domestic use over industrial use, I would think. It is nice to have an area of the country left where water is one of the biggest important resources.

We heard testimony this morning of wells whose water levels are dropping all the time. You are right—water is coming out of there, the water level is dropping, so you put 40 wells and some might be needed for slurry on the Wyoming side; surely it has got to have some kind of effect on the water table on our side.

Mr. EISERMAN. Senator, that water is required to be taken below 25,000 feet. Right now, there is no agriculture in that area taking that water and that's where I had a sensitive spot in my heart for the project because I use surface water on the property we own in Big Horn County, and I do not want to see tradeoffs between industry and agriculture using surface water.

I would rather have industry go to a source of water that is not being used than go to surface water that has the potential for agricultural use.

Senator ABDNOR. What about all these assurances you are giving? What do the ranchers of the city of Edgemont have for assurances from you people that's worth a nickel if it didn't work out?

Mr. EISERMAN. Senator, I might be naive. I have worked with a lot of big companies: United States Steel, Texaco, Amoco, and sometimes we have only worked on a letter of understanding.

ETSI has many more documents than that and in no case that I can remember has industry ever backed away from a responsibility, especially when they are in the public searchlight such as ETSI has been, such as any of the big companies have been, with so much publicity.

First off I feel the documents are legal and binding documents and I might refer that to Jim here. But, from my own perspective—in fact, I know I can never relate to where industry has backed away from an agreement on a water issue that I have been associated with.

Senator ABDNOR. What have you got in writing, Mr. Nelson, that says that to the people in South Dakota? A man's word is great, I am sure, but most business people like to have it in writing like a bank wants your note signed. What's this guy got that is really going to pin ETSI down?

Mr. NELSON. Senator, let me tell you what I am familiar with, anyway, and I don't pretend to know everything that is going on. But, the State of South Dakota on two different occasions was offered the same kind of third-party beneficiary contract, as they call it in Wyoming that Wyoming has.

Then, those similar contracts were offered to the city of Edgemont and it finally simply got down to the point where you have disagreement in negotiating contracts, where I understand that

ETSI simply said to Edgemont and the people down in Fall River, the various groups that were involved, "You draft a contract that you like and offer it to ETSI. Bring it up to ETSI. You fix the terms that you want and present it to ETSI."

I think the underlying problem with it is that in order to have that kind of contractual arrangement you have to have a factual determination that the wells in Wyoming are damaging or hurting somebody in South Dakota, and this can get to be quite an expensive, time-consuming proposition.

But, there has to be some proof of a crime for damages that it relates to the use of water in Wyoming. This, I think, is what the ordinary rancher or city, people in the towns, are worried about. But, those same things have been offered and discussions have been had and points have been nitpicked back and forth, and finally the latest thing I am aware of is that Mr. Odasz in Casper simply said, "You draft what you want. Put in everything that you want and get it back to us and we will look at it."

Senator ABDNOR. How can a rancher that loses his water really prove it was because of you people on the other side? That's a pretty tough thing to prove.

Mr. NELSON. That is a tough thing to prove, but I am not the scientist here.

Senator ABDNOR. How about it? Let me ask the geologist. What has he got? How can a rancher in Edgemont prove that it is ETSI's fault way over on the other side in Wyoming?

Mr. CASE. One thing that a rancher, I would think that a rancher would have to do is to first have what his water levels were before the project went in, have them documented. Without that it would be very difficult and virtually impossible to prove that.

I am guessing that the next step would be to actually use some of the digital models that have been used to predict what levels the water is going to be.

Senator ABDNOR. Would it hold up in a court if he goes after him?

Mr. CASE. It would totally depend on what model was being used, the data that went into it, and everything, and the judge. Digital models have been used in other parts of the country to adjudicate water rights. But, whether or not they would stand up in this particular case is something I couldn't begin to guess.

STATEMENT OF DONALD BROWN, SAVE NEBRASKA WATER

Mr. BROWN. Senator Abdnor, I was a geologist in charge of the limestone surface study.

My name is Donald Brown and I am representing Save Nebraska Water.

I was in charge of the subsurface geological survey from 1976 to 1980, and if you want to ask me the question of what would you do if I were a judge, I would say: Turn to your environmental impact statement on page 4 where it says that there would be no ground water or spring or stream flow impacts as a result of pumping water from the Oahe Reservoir.

I think that pretty well says it because I have given you to enter into testimony three papers: One represents original technical testimony that was given at Edgemont; one paper has a response to the environmental impact comments on the testimony, and then what I was going to testify on today. And, it is fairly technical and I will just leave that for someone else to read.

But, what I would like to say is that has been brought out before. What it amounts to in any digital model, unless you put the correct geological factors into the model you are not going to get an accurate prediction.

Unfortunately, we spent several million dollars on a 4-year study which was probably the most detailed, most multidisciplined approach study to the evaluation of any groundwater system in the United States, certainly of the Madison Aquifer system.

My complaint is that the environmental impact statement and Woodward-Clyde model—I have to disagree with Mr. Case. He did not have this data available to use in their digital model. This isn't Woodward-Clyde's fault. It wasn't available because it hadn't been released for publication yet. So, I think they did an admirable job making the model that simulated the aquifer system in the short time they had. Unfortunately, it doesn't agree with the data that the Geological Survey study indicated. In many cases it is completely opposite. There are places in there when the Woodward-Clyde model assumes homogeneous isotropic flow which means that everything is alike in the ground and the water flow in one area is the same as the other area, and this isn't true.

But, the reason they have to do this is because there is not a model available that handles fracture permeability, and fracture porosity, and isotropy well. So, you have to do the best you can.

Senator Abdnor. A rancher would have one heck of a time.

Mr. Brown. Right. The average porosity, average permeability, average recharge, average flow, so you have a model that has an average of averages which is going to give you an average drawdown. If you don't live in the average area what the model is predicting is going to happen is not applicable to your situation.

I realize the timing is critical on both sides, but it is a shame that the results of a multimillion-dollar project are not being taken into consideration of this.

One other point that has been brought out in the environmental impact statement to the extent that I think it is significant, is the amount of vertical communication between aquifers. There were several studies done by the Wyoming portion of the U.S. Geological Survey studies which showed that the water quality along fracture zones mapped by me were wells within these fracture zones. The water quality in wells in the Madison formation were the same water quality as the wells in the Minnelusa formation. The only way you can have this is vertical communication, water moving up between the formations. As soon as you got off the fracture zone the water quality was significantly different in the two formations. This again proved vertical communication between the fractures.

Now, many of the oilfields that are located along the western flank of the Black Hills are hydrodynamically trapped. All this means is water is moving out of the outcrop area down into the formation meeting the upward migration of oil out of the basin and water itself is what is holding that oilfield in place.

An example of this has been published by Berg which includes the Recluse field, the Bell Creek field, and several fields like this.

The model that Woodward-Clyde said, if you pump that Madison and take large quantities of water out you are going to deplete the heads in these Minnelusa formations. If you deplete the head, what's going to happen to those oilfields? Nobody has really considered this very much.

Senator ABDNOR. That's pretty deep stuff.

Mr. BROWN. Let me finish before we get into the argument.

My conclusion is that my concern is that the Woodward-Clyde model, which has not taken into account anisotropy, fracture permeability, temperature and density effects on permeability, and vertical communication between aquifer systems is the basis for approving or disapproving the ETSI pipeline, whether it is constructed or not. Hydrologic models are notorious for the many variables that can be manipulated so that the model will fit a potentiometric surface. It is possible to end up with a model that fits a specific data set but the results will be unpredictable in any other circumstance because of the geological data used in the model are inconsistent with the real world.

In volume II of the final issue of the environmental study, hundreds of pages of text have been presented in which experts do not agree on the variables that were put into the Woodward-Clyde model. These include such items as: Amount of recharge to the aquifer; discharge from springs; permeability values; rate of movement of fluids; leakage versus nonleakage; water quality; and so on.

That brings us to one other question: The original concept of this was that brackish water systems were to be used. Whatever happened to this concept? Any competent hydrologist in that area could have told you, you are going to get fresh water in the Niobrara well field. If we are going to use brackish water there is other places in Wyoming where you could drill a well that would supply water that is brackish.

If it is fresh water, certainly the Oahe Dam is the only way to go. But, I feel that if they do decide to use groundwater, then I agree 100 percent with Mr. Eiserman: We ought to do a system that is extremely well monitored. These monitoring systems ought to be placed on the local geology, the fracture patterns, the anisotropy put in there, and in the predicted areas of the already existing digital models——

Senator ABDNOR. You are satisfied that could be done?

Mr. BROWN. Yes; I think you would have to run a long-scale pumping test rather than a long-scale pumping test in which one well is pumped and two wells monitored, one of which was plugged that had no—they said there was no drawdown in the northern well. Well, there was no drawdown in it because the well was not open to the aquifer and many of their models are based on it showing a barrier to the north which is based on a plugged well, so they essentially had a 3-month pumping test with one well to monitor it.

Now, you need to have a significant amount of monitoring wells. They need to be placed in the correct position so that you are not in average land all the time, so you get into the areas of high transmissivity and low transmissivity. This could be done on local geology and present models currently being done.

Senator **Abdnor**. You throw all that in and it must be pretty expensive. It must make an aqueduct more reasonable all the time, costwise.

Mr. **Brown**. That's true, but what's the cost of the legislation, the year and a half of hearings?

Senator **Abdnor**. I think we have come a long way in South Dakota since we made these statements.

Mr. **Eiserman**. Senator Abdnor, I didn't address your question on the rancher situation and I want to come in from my own perspective.

I know if I was a rancher and had a set of sprinklers, center pivot, and had all the energy development occurring across the boarder in Wyoming, I would certainly want some kind of hold on what was happening. In Governor Herringrud's presentation back in Congress concerning the eminent domain legislation, he indicated there were other energy entities interested in the Madison formation as well, so if you don't have ETSI there is a good possibility you are going to have somebody else taking that water, and I read a document from Dr. Swenson, Ph. D., who was with the U.S. Geological Survey and he has studied the Madison for 8 years and he says:

> Clear evidence exists that no relationship exists between the Madison at a depth greater than 1,000 feet and the shallow aquifers which supply domestic stock and limited irrigation supplies to the Powder River basin.

This gentleman and that gentleman are saying something different, so I have to go back to the observation wells in order to keep track. This is the same doctor saying, this Dr. Swenson, in order to keep track of the effective well fields on the Madison aquifer observation wells should be constructed or existing nonpumped wells found, each of these surrounding the major well field.

The water level or pressure head should be measured periodically. This way it will be possible to monitor the spread and magnitude of the decline of the potentiometric surface in the Madison aquifer and that's why I feel comfortable. If I was the rancher I would feel the same way.

Mr. **Brown**. I know Dr. Swenson. We work together. He was doing the Madison study before we came out here.

When I came out and took charge of the subsurface geological study there was one map on the Madison aquifer as a result of all their study.

At that time there was one map on the Madison limestone put out by Dr. Swenson. During the 4 years we worked on the Madison limestone we covered 200,000 square miles. We looked at 2,300 wells. I personally made 372 maps of this whole area, mapping everything that you could think of to map in the geology, and at that time we understood the geology of the system. We know there is vertical communication between these formations.

Dr. Swenson had no way—I am not taking anything away from him—Dr. Swenson did not have a $7 million budget and 4 years of study to do this. We did. We know what the Madison aquifer system is like.

Senator **Abdnor**. Have you been doing work for Nebraska now?

Mr. **Brown**. Yes, sir.

Senator **Abdnor**. For the State?

Mr. **Brown**. Mostly I have been testifying for Save Nebraska Water.

Senator **Abdnor**. I am a little concerned. Have they expressed a concern like South Dakota has?

Mr. **Brown**. Yes, they have.

John Williams is here today representing the State of Nebraska.

Senator **Abdnor**. We have to keep moving along. We have a lot of people to hear from.

An unidentified person. Jim, I have a question I would like to ask Mr. Eiserman here.

Senator **Abdnor**. If I open this thing up I could have a free-for-all going. Maybe we can get him to answer before the record is through. If I let you do it now I am afraid everyone will want to ask questions.

You will answer questions for the record, will you not?

Mr. **Eiserman**. Yes. Some questions I may not be able to answer. Anybody asking questions must give their name and address so we can get back to them with an answer.

Senator **Abdnor**. Or through us. We keep the record open and have questions for the record. That's what we want.

Have you thoroughly examined the other alternatives? Has ETSI looked at this new proposal we have had of the waste water effluent system?

Mr. **Eiserman**. From my position as environmental manager and trying to obtain permits for ETSI, I have looked at the other alternatives with respect to how they might influence our discharge permits. But, so far as the exploration of the other alternatives with reference to the economics or the political implications, that is being handled at the administrative level that I am not privileged to be a party of.

Senator **Abdnor**. Will we be able to receive that?

Mr. **Eiserman**. Yes; if the questions were asked and I would have them entered into the record from somebody else besides myself.

Senator **Abdnor**. When you people talked pipeline to the State of South Dakota a few years ago, that pipeline talk was a realistic thing on the part of ETSI and the legislature and the Governor turned you down or vetoed it. Was that on the basis that you would accept water on a full-time basis with no wells? Was that the agreement at that time?

Mr. **Nelson**. Senator Abdnor, the Oahe water was sought for a backup source of water and for use in a second pipeline. ETSI hopes to establish not only just a pipeline, but a whole new industry of transporting coal by slurry and they are convinced now, and as they were then, that it was going to take water from the Missouri for the additional pipeline and also the backup.

Senator **Abdnor**. What happens if this slurry thing proves as profitable for ETSI and the country as evidently those who are working think it will be and other companies want it? Are we going to keep letting them drill wells? ETSI is there first and they get what little there is and to heck with the rest of them?

Mr. **Nelson**. Unquestionably the Missouri River water is a very huge, stable source of water that is available and should be used, and I think will be used in the future. I think you are right, that there is not only slurry transportation but all sorts of energy development is going to need water, and I think the Missouri River water is a prime source.

Senator ABDNOR. Well, I hope our Govenor and legislature is successful in negotiating with ETSI.

I think we better go ahead and call our next speaker.

STATEMENT OF MARLENE SIMMONS, MEMBER, WYOMING LEGISLATURE

Ms. SIMMONS. I am a member of the Wyoming Legislature. I was not there in 1974, but ETSI was very near and dear to the hearts of the people in Crook County, Weston and Niobrara. These people have formed some very strong water committees and are very, very concerned over the ETSI project as are the people in South Dakota and Nebraska.

I have a few answers for you and a couple things for the record I feel you need to know about. After the 1981 legislature both Governor Janklow and Herschler appointed water committees and I have the provilege of serving on Herschler's ad hoc water committee.

The first thing the Wyoming committee did was redo the so-called third-party agreement. If you will pick up the EIS and look at it, it is the most detrimental piece of agreements that I have ever seen to put the burden on a landowner. It is unbelievable. We redid this.

We sent a copy of it on the 19th day of May to Mr. Frank Odasz and they have flat turned us down. They will not negotiate with us, they will not talk. They do not want to change this as it puts the burden of proof on ETSI. It makes them a partner with us in the event that Arkansas would take us into a lawsuit if the water is shut off. It would not allow them to purchase and insert into the water aquifer sewage water which the third-party agreement now does and there are several other things that is does, like, presently the third-party agreement gives ETSI 2 years to negotiate and decide. In 2 years your cattle would get damn thirsty and your people can get dry.

This new party agreement gives them 2 months. They won't negotiate. They talk about good faith, they talk about wanting to do the right thing, but they won't even talk about negotiating the new third-party agreement. You need this for the record.

Also when they start talking about food production and the fact that we cannot afford irrigation for agricultural products, I think that that is something that the Federal Legislature and the State legislatures are going to have to take a hard, long look at as 3 million acres a year are going out of production and we are going to have to make this water feasibly economical for food production or we are going to have hungry people and so is the rest of this world.

We have this monitoring system that they talk about. It bothers me very much. We currently have in place and monitoring the new Gillette well system, which is five wells that supplies water from the Madison out of Crook County to Gillette for their municipality and the Wyodak powerplant. We have a very good monitoring system.

We have a monitoring system on line in use that will tell us something very, very soon and will let us know whether or not there is going to be a drawdown. We don't need ETSI to do that for us.

Senator ABDNOR. How long has that been on?

Ms. SIMMONS. Since May and it just went on line, but we have a very strange monitoring system, but we do have a monitoring system of the Madison formation.

The other thing that people are concerned about—I don't want to take too much of your time—but the current Federal law—and believe you me I have been to Washington three different times since the first of May on this and visited with Gary Caruthers, Jim Watt, Bob Beurford, and many others in the Department of the Interior. They all tell me that under current Federal law on the interstate compact if this water goes into that pipeline—and granted ETSI says they will act in good faith and shut it off—but ETSI won't have the right to shut it off if we are delivering coal to Arkansas and it comes under interstate compact. Then those people are the ones taking us to war. ETSI will be out of it and their little hands will be clean and free. I am very concerned about these things.

I was in the 1974 legislature and I tried this year to pass a 3-year stoppage of this to give us a chance to do some more hard looking at this and to find them alternative sources. When they talk about the Oahe and WET system they are not talking about it in place of, they are talking about it in addition to. And I think this is something that this committee should be aware of.

I have found it very, very difficult to even be able to talk about ETSI in a very sane sense because I feel the people in this end of the State of South Dakota, Nebraska and Wyoming are going to dry up. Much of our streams, Sand Creek, for instance, which sits just across the State line is down 3 feet right now. This is due to the drought. If it continues to drop like the EIS says it is going to—it is a class 1 fishery—there isn't going to be any fishery there and we cannot afford to let this happen to our class 1 fisheries. South Dakota has many of them and this is drastically going to affect all the people, and I am speaking on behalf of the people of Crook County who elected me to office and I have personally hand-delivered to Jim Watt over 1,900 signatures against the Madison formation being used in a pipeline

Thank you, sir, for allowing me this time.

Senator ABDNOR. Are you going to see any change in the attitude of the Wyoming Legislature at all with a fire like you have there?

Ms. SIMMONS. They know I am there, sir. They are going to see some drastic things happen to their water. There are people wanting their water and they are starting to come around. In fact, I have found some very, very interesting things, people who supported ETSI very strongly, the county commissioners, for instance, have passed a very strong resolution in our favor. Half of the municipalities in the State of Wyoming now are backing us 100 percent. The other half I think will come along in December.

The Wyoming Farm Bureau has taken a stand with us. The Wyoming Stockgrowers are on shakey ground now, but that's because one of their leaders was a proponent of this back in 1974. They think it is right and they really don't know what to do about it.

I think you will find that until there is a change in 1982 in the election of some senators that sit in Niobrara, and Crook County, Weston, and some of these other places, that you won't find a change in the law. But, I am going to go back again on the budget session and try to repeal the law. I don't see any other way out.

Senator ABDNOR. Thank you. Who wants to lead off?

STATEMENT OF EDDIE CLAY

Mr. CLAY. Each of us, Senator, will have 3 or 4 minutes. We will submit written testimony. We realize the timeframe is very short.

In answer to one of your questions earlier about the amount of use of Madison water, a request for water in the Powder River basin—if you will read the Department of Energy report—by the year 2000 variable estimates are that there will be approximately 287 million acre-feet of demand for energy development systems in the upper basin region, so you can see that this little argument we are in today is just the beginning.

Briefly, Senator, the two things that we have are the detailed study of the sixth planning district on the wastewater effluent transport system feasibility study, the liability of some of the issues used I might say as a side issue, 20 people of some 22 people involved with the downstream water rights system of the wastewater, Rapid City discharge, has signed an agreement that they are willing to go along with what we are trying to do, so we are finding out what they understand the problem is. We do not have the legal problems that many people are discussing.

The other one, the effects of the proposed ETSI slurry with comments on the draft environmental impact statement is data compiled by the group that we are working with engineers of the sixth planning district and others that we feel that the EIS statement did not cover, and that will be a part of the record because we feel it does not speak at all to the economic impact or the human impact. It moves down to the drawback and stopped.

I would like to make one comment and then pass the mike to the other members of the panel.

It seems to me that when we are talking about South Dakota ETSI pipeline or you as a Senator, the responsibility that we have is that we will share our energy resources. We will share our water resources of this Nation, but in doing so all of us have an obligation to see that those areas that we are giving up are being used as suppliers to the rest of the Nation, that when it is all done we have a viable place to live and everyone in this region is very much aware of the water scarcity we already have and it seems to me that whether it is Federal regulations, or State, or interstate compacts that what we have to make sure of is that we are husbanding this water as wisely as possible, not for the cheapest economic dollar.

To give you an example, when we were visiting with Mr. Odasz and others, we found out that a large amount of this coal energy system—if you take a look at the slurry pipeline's proposed ends at seaports—the very obvious reason why Japan was in Wyoming and Montana within the last 6 months signing contracts for the next 20 years for coal for Japan, and I don't disagree with that. I think we share our energy just like they share their resources, but I will be damned if I'm willing to see this region exploited on its water system for a foreign country's energy system. If we are doing it for our own Nation, that's one thing. But, not for a foreign nation unless things change considerably, and so in closing I would say that all of us have responsibility to develop the energy resource of this country, to improve the living standards of the people and expand energy and industrial output of this country, but we have an obligation not to do it as the total detriment of those regions that are the suppliers of the energy sources.

Each of the other members of the panel will cover this. Keith Anderson is next and will be discussing some of the actual impacts on the city of Edgemont in that area.

STATEMENT OF KEITH ANDERSON, CITY OF EDGEMONT

Mr. ANDERSON. Thanks, Eddie.

My name is Keith Anderson and I am representing the city of Edgemont.

Mayor Ziemet was unable to be here and he asked me as president of the city council to take his place.

On behalf of the city we would like to thank you, Senator, for this opportunity to talk about an issue that we are extremely concerned about.

You have heard a lot of testimony presented on the ETSI issue and I will try not to repeat anything.

I would like to take this opportunity to try and bring into focus some of the issues for you. By way of introduction, I would like to mention that my family has ranched in the Edgemont area for some 85 years and I feel I am fairly in touch with the impacts of this project on agriculture.

As an engineer I have also been involved in groundwater investigations in the Edgemont area for the last 5 years and as part of that I have supervised a construction of some 35 wells, including a contract for a well that we just let last month. It is an 800-foot well and is costing us about $80,000. I would hope to use this experience to give you some idea of what we are talking about in terms of impact.

Senator ABDNOR. What is the well to be used for?

Mr. ANDERSON. It is designed as a test well to get information on the Inyan Kara aquifer.

Senator ABDNOR. Are you in the Madison?

Mr. ANDERSON. We are in the Lakota. My investigations have been pretty confined to the Lakota aquifer. Everyone now living in this area of southwestern South Dakota, northwestern Nebraska and eastern Wyoming depends on a reliable supply of good quality groundwater. There is no other supply of water for drinking water. This is the only source we have got.

Over the last 100 years the people of this area have invested millions of dollars developing our water supplies to support our agricultural lifestyle. We see the ETSI project as the most severe threat to this lifestyle since, probably, the Great Depression.

In our view ETSI proposes to destroy all of this for the sole purpose of making a profit for the ETSI stockholders. That's a profit that will be made at the expense of the people who spent their lives developing this country.

The question that we have to ask is: What will be the impact of the ETSI project if they are allowed to pump from the Madison formation? It's been pretty obious from the testimony that you have already heard that nobody knows what the impacts are going to be. If we take a look at figure 53 that's included in the final environmental impact statement they are using the projected drawdown that covers this area. This is about 3½ million acres.

On the other hand you also heard from Mr. Case, U.S. Geological Survey, discussing the Madison limestone study. The U.S. Geological Survey predicts a drawdown over this Broadus, Mont., area. I think it is pretty obvious that everybody agrees that we are going to have a significant impact on our water resources.

According to the ETSI environmental impact statement virtually all of the productive aquifers over this area will be under the impact.

If I could divert for just a moment to respond to a comment made by the ETSI representative. He states that one of the benefits of this project is going to be to provide data on the underground aquifer system. I submit to you that that is just about like going to the doctor and say, "Doctor, what's the matter with me?" And he says, "I don't know but we will do an autopsy and find out." That's what they want to do to our water system.

Let me speak to the concern specifically of the town of Edgemont. The municipal water supply for the town of Edgemont uses water from the Madison well and as is characteristic of most of the water supplies in this area, the quantity of water available is marginal but adequate. Watering restrictions are periodically required to maintain an adequate supply for domestic use. Any reduction in the amount of water available from the Madison will require major investments by the town to construct new water supply wells.

Based on the rates of drawdown that were published in the ETSI environmental impact statement we project that within 5 years after ETSI begins pumping from the Niobrara well field we will be required to invest a minimum of $750,000 to replace our water supply system. If you add to this an annual operation and maintenance cost of $25,000 to $30,000, and it is obviously a devastating impact for a community of 1,500 people.

Quite frankly we are not impressed by the agreement that ETSI has offered to us to protect our water supply. It is obvious to us, using our limited budget, we can't devote a lot of time to hire experts and spend time in court to prove that the impact was the fault of ETSI. ETSI will tie us up in court for months and we are sitting there without any water. It is totally unworkable from our standpoint.

Additionally the mitigation agreement that ETSI has offered completely ignores accepting any responsibility for shallower aquifers and all of the information that we can gather it appears that the shallower aquifers will be affected as severely as the Madison formation, even as severe as the impact on Edgemont, but it will be far more significant with the impact on the shallower aquifers. That's the hundreds of ranch wells that support our agricultural economy.

I have here, Senator, a list of 268 ranch wells that are located just in the Edgemont area that produce from the Inyan Kara formation; my investigation of the amount to be impacted by the ETSI project. The total number of ranch wells that are likely to be impacted by the ETSI project will far exceed this number, 268, but this does give an indication of the magnitude of the impact we are talking about.

Senator, as one who has been involved in agriculture, I am sure you can understand our concern. If all of the ranchers in this area are forced to spend $50,000, $100,000 to replace their water system just to maintain their present operation, the economic impact on this area will be catastrophic.

In closing, Senator, I would ask you to use every influence you can with Secretary Watt to stop the use of the Madison water by ETSI.

Groundwater is our most precious resource. And we can't afford ETSI to waste it.

Senator ABDNOR. Have you noticed any unusual drawdown over the last few years in these 200-some wells? Are they holding steady?

Mr. ANDERSON. The water level is going down, yes. That's just based on the present level of use.

Senator ABDNOR. How much greater do you suppose additional wells would be, then? Would it be almost equal to the amount of water used today by the amount of people in your area?

Mr. ANDERSON. The ETSI wells?

Senator ABDNOR. Yes.

Mr. ANDERSON. The ETSI usage would far exceed the amount of water being used in the area that I am familiar with. I would estimate that the ETSI project would use at least five times as much water as being currently used.

Senator ABDNOR. Who is next?

STATEMENT OF JOHN P. SCHELTENS, CITY ENGINEER, CITY OF HOT SPRINGS

Mr. SCHELTENS. I am John Scheltens, city engineer for the city of Hot Springs.

Senator Abdnor, I have brought a few charts with me today to help clarify any questions. I would like to address a few of the things that the environmental impact statement didn't address.

As you are aware, 18 formal hearings were conducted on the draft environmental impact statement by the Bureau of Land Management. This draft, as we all now know, drew heavy criticism not only from the government levels, both State and Federal, but the private sector rang out in thousands of responses over the inadequacies in the report.

Most importantly is that over 90 percent of the criticism was that the draft environmental impact statement's lack of human impact, especially those ranchers and communities affected by ground water drawdown in Wyoming, South Dakota, and Nebraska. Yet, despite this formal human outcry the final EIS continues to ignore the ramifications of severe water drawdown.

This drawdown area as shown on the chart on the left over here affects 3.4 million acres of surface area. This, of course, is primarily used for agriculture.

In the EIS they alluded to our excessive rainfall which is tremendously in error. Average rainfall is less than 13 inches per year. The area is estimated to contain some 2,200 domestic, farm, ranch, and community wells. At an average of 30 acres per cow-calf unit, the affected area supports some 113,000 units with a present market value of $96 million per year.

An area outside the drawdown area is the Angostura Irrigation District, but it receives its flow through the affected area as well as from Cascade Springs, which will be affected by the drawdown reduction. This will increase annually through the production or through the ETSI drawdown to about 3,200 acre-feet a year which is that much water that could be used as irrigation in the Angostura Irrigation District.

This relates in drop of production to about 150,000 bushels of corn annually for about the present market value of half a million dollars in economic impact.

We are aware that argiculture is the primary industry for South Dakota, but we certainly can't underrate the second major industry of tourism. The ETSI project is going to affect tourism in the city of Hot Springs where the major tourist attraction is the warm water springs in Hot Springs and the center of activity is Evans Plunge. Evans Plunge is credited with generating or basically attracting one-half of the annual tourist traffic to Hot Springs. In dollars and cents this represents about $7 million in local income.

Now, these dollars generated by both agriculture and tourism that I just mentioned, of course, are primary dollars. This money is not spent in Chicago, New York, but spent locally and turns over about seven to eight times per average dollar before it leaves the community. This would mean this potential impact would create a business deficit or a lack of trade of about $776 million in local business transactions in this three-State area.

Relating that to a sales tax revenue of an average of 5 percent for the area is about $36.2 million in a loss of sales tax revenue.

Now, as mentioned a little bit earlier by Governor Janklow the well drawdown and the streamflow reductions of the area is going to cause additional problems particularly to their water systems and also to the waste water system. Not only would we have to deepen wells and pump from deeper levels, we are going to have to expand our water treatment levels which means to have to process the sewer to a higher degree which will cost $100,000 or $200,000 annually to the city of Hot Springs to be able to meet these problems.

Of course, all these impacts are physical and economical and can be quantified to some degree. But, how does one quantify the loss of lifestyle and quality of life that will be forced to change when there is little water to be had? How does one quantify the loss of a family-owned ranch or farm that has seen the three and four generations of family forced to move because their water was taken?

Instead of working with numbers and statistics, this blue map on the wall I borrowed is a map of Fall River County and the red cross-hatched area in the western two-thirds of the area would be the area affected by the drawdown. The interesting thing about the map, it now puts names, people, and places into statistics. You can look at the map and see whose property and whose names and who you are actually going to be affecting in the Fall River area. This only represents about 25 percent of the total drawdown area, but it has a traumatic effect, nonetheless.

In general, the people of Wyoming, South Dakota, and Nebraska are generally supportive of mining coal, oil, uranium, and other minerals in the area to make America energy independent. But, even after the minerals are exhausted, with proper reclamation, life can continue. However, to exhaust the area of its water is unquestionably inexcusable and intolerable. It is without a doubt that water will be a greater issue in 5 to 10 years than energy is today. It is mandatory that intrastate regulations and interstate water compacts be enacted to insure responsible allocation and uses are made of our most precious water resources.

Thank you, Senator.

Senator ABDNOR. Thank you.

Mr. CLAY. Earlier you had asked about monitoring wells and drawdowns. I am totally amazed at the fact that no one seems to be willing to use the drawdown system for the Igloo Ordinance. It was an ideal test because it had been operated since 1940 with up to 40,000 people over a period of time just like a city. We have had about 10 or 15 years of use of that drawdown as it relates to the Edgemont City wells and the wellhead pressure that dropped there, we have had 10 to 15 years in which the Igloo Ordinance Depot has been closed. And between that time you had a uranium mill operate in which we drilled a well in the center of two operations. After Igloo closed and after a considerable period of time right now the wellhead pressure at the uranium mill is greater than it was on the day they built it. You have a log of the well, data, everthing to use that is not guesswork.

Now, it doesn't fit the whole system, but those wells are approximately 9 miles apart. A geologist can tell you exactly what kind of strata you have down there going on in the Edgemont-Igloo area now and yet no one seems to be willing to take that data which is a very factual basis, at least in that 9-mile area. And it shows a major drawdown when the heavy effect of Igloo was going, it shows a major recharge system in between, and it shows what the situation is now. And yet no one seems to be willing to include that in their data.

I appreciate that it may not be what everyone wants but the point is, it is the only place I know of that you have almost a 40-year history of actual drawdown and recharge of the Madison formation. If we are looking for data we ought to be using it.

Senator ABDNOR. Other than your stating it just now, do we have that in writing?

Mr. CLAY. Mr. Brown can furnish that to the committee because it is available data through that system.

Senator ABDNOR. We would like to have it.

AN UNIDENTIFIED PERSON. In 1968 Edgemont bought the Black Hills Army Depot and I was in charge of it up through 1974. We were pumping at a maximum of 600 gallons per minute for 12 hours a day. The ETSI field will be pumping at 12,400 gallons per minute just 8 miles to the west of these wells. We lower the well pressure, the head pressure in the wells of Edgemont from 86 pounds to 79 pounds in that period, and from that period, now, as Eddie said, they have built back up to 90 pounds.

The mill well was the last one drilled. It came in at 86 pounds. It is now at 90 pounds because there is very little water being used at the ordinance depot.

Stop and think. It takes 20 times more water than it was pumping out there just 8 miles to the west of those wells. If that will lower us 7 pounds in our potentiometric head in that 9 miles, what will 12,400 gallons per minute do just 8 miles farther on?

Senator ABDNOR. Mr. Brown, you will submit that for the record?

Mr. BROWN. It has been submitted time after time.

Senator ABDNOR. In this record right here?

Mr. BROWN. Your gal will have it here. But, I submitted it to the U.S. Geological Survey and to ETSI for use of those two wells in the ordinance depot to prove what could be done in that 9-mile period, the mile distance, so that we would have an idea as to what was going on and the U.S. Geological Survey couldn't drill a well out in the well field. They had to drill one out by Sundance, N. Dak. and Mont. Apparently nobody wants to find out what is going on there except us and we know what will happen and it can be proven and they can prove it in a year if they want to prove it. All they have to do is put two 600-gallon minimum pumps and pump 24 hours a day and I will guarantee you in 4 months we will have that 7-pound pressure drop down again in that well.

Senator ABDNOR. Thank you. Again, we would like those figures.

Mr. CLAY. Mr. Marvin Truhe, attorney, will speak to the DEIS statement.

STATEMENT OF MARVIN TRUHE, ATTORNEY, REPRESENTING THE CITIZENS OF FALL RIVER

Mr. TRUHE. Senator, our firm has been retained to represent Fall River County.

In regard to this point, if it is not clear already, I would like to make it clear that Fall River County is not opposed to the idea of the pipeline, but we are vehemently opposed to their taking our ground water to supply that pipeline.

I would like to make two points: First, the impact statement that was prepared, this final impact statement, completely fails to address the major impact that is the actual impact of ground water losses to the people of South Dakota, Nebraska, and Wyoming.

The second point I would like to make: The so-called mitigation agreements offered to South Dakota by ETSI are worthless in terms of providing any protection to South Dakota citizens for reasons I will set forth later.

The entire purpose of the National Environmental Policy Act and the impact statement is to fully discuss the major impacts of the action as an aid in deciding whether the Federal permits should be granted.

The law specifically states, and I quote:

> The National Environmental Policy Act documents must concentrate on the issues that are truly significant to the action in question rather than amassing needless detail.

I submit that we have in this impact statement 11 volumes of needless detail that completely missed the point: The impact on the people.

The law further states that the impact statement:

> Shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts.

The impact statement is virtually useless for that purpose.

I challenge the Bureau of Land Management or ETSI to show this subcommittee where the impact statement considers in any fashion, anywhere, in those 11 volumes that the actual impact of groundwater losses on people and communities. Not a discussion of how many feet of drawdown are expected but what those drawdowns will mean in terms of people.

For example, identify the number and location of water wells that will dry up or be substantially affected. How will the reduced streamflows affect existing irrigation? What will be the cost of replacing wells, assuming that there will be any water left to drill for? And so forth.

In short, having an 11-volume impact statement that never discusses the impact on the people it affects is absurd.

The impact statement discusses many different alternatives. What is interesting, however, if that all of the alternatives discussed, the impact statement itself establishes that the most serious impact on the water resources would occur with the proposed action that is, the use of the Niobrara field water.

I refer the subcommittee to pages 2-8 of the impact statement where it says precisely that. There is a comparison chart of the effect on water resources.

The most serious impact on water resources would occur with the proposed action and, once again, I challenge to show otherwise. Quite simply the proposed action is the worst possible choice.

Finally, I would like to talk to you about the so-called mitigation agreements we have heard about earlier today. They have been offered to Edgemont and to South Dakota by ETSI and a copy of those proposals are in volume II of the statement, pages C-38 and C-43 and, as I said earlier, those agreements are worlthless in providing any protection to South Dakota citizens for these reasons: No. 1, they would require a South Dakota citizen to prove that any drawdown or loss of water well was caused by ETSI's pumping. That would be extremely difficult, costly, and time consuming to prove since all these impacts are occurring hundreds or thousands of feet underground. If challenged, all ETSI would have to do is to blame the problem on other users, drought, or anything else they could think of.

No. 2, the Edgemont agreement provides that only ETSI and not Edgemont can appeal from an adverse decision. You don't have to be an attorney to know that fairness dictates that each side be given equal rights to appeal.

Senator **Abdnor**. That was their offer?

Mr. **Truhe**. That's correct. It is paragraph 7 of the offer to Edgemont. It specifically says that only ETSI has the right to appeal from a decision.

No. 3, even if we could prove conclusively that ETSI was at fault, they could tie us up in court for years through the appeal process, which has been discussed earlier.

Finally, under the proposal submitted to the State of South Dakota, even after ETSI is ordered to stop pumping water, they can wait 2 full years before complying with that order. There is a 24-month clause.

Incidentally, that same 24-month clause is found in Wyoming's agreement which they signed, and getting this secondhand from the press, in the past few weeks I understand the Governor of Wyoming is trying to modify that agreement. He is concerned about a 24-month delay period that ETSI has even after they are proved to be causing detriment to the beneficiary users. And, of course, during any 24-month period there would be large numbers of farmers and ranchers that would be completely wiped out.

In short, signing ETSI's proposed agreement would accomplish nothing except guaranteeing South Dakota a lawsuit.

One point was made earlier today, Senator, that I think should be addressed and that is: ETSI has come back with a statement, "If you don't like our agreement why don't you draft whatever kind of agreement you want."

I have to make clear to the committee here today that any mitigation agreement will not be satisfactory for a simple reason: ETSI wants to take our water and they want to give us an agreement to take it. We don't want them to take our water. Under those circumstances how can we possibly reach a meeting of the minds and an acceptable agreement?

At the risk of overstating this, this is like somebody saying to you, "I want to burn down your house. What kind of agreement do you want?" We don't want our house burned down. We don't want them to take our water. How, then, can we reach an acceptable agreement? Quite simply we cannot.

Now, this is all I have from my written statement, but I would ask that you put into the record the other statement that I have included that I have already submitted. These were some comments that I made, Senator, with regard to the draft environmental impact statement.

Senator **Abdnor**. This was the first draft?

Mr. **Truhe**. Right. We submitted these comments on behalf of Fall River County in the fall of 1980 and I could give you the entire section of it.

Senator **Abdnor**. We keep track of them all.

Mr. **Clay**. Senator, we thank you very much for coming out here. We want to reiterate in spite of what some people have been saying we are not antidevelopment. We know we will share the energy and water. All we want to do is be alive when it is left.

Dr. Perry Rahn would like to make a brief statement.

STATEMENT OF PERRY RAHN

Dr. **Rahn**. Just briefly, Senator, I have been studying this. I am a professor of geology at the school of mines and for years I have been fighting the whole ESTI project. I have published papers and been to the House Interior meeting in 1975 and things haven't changed that much in 5 years. I can show you the earlier reports that looked very much like that and I am still dead set against the project.

I think it is a terrible waste of our valuable groundwater and I just hope that you can do everything that you can to prevent it from taking place.

Senator ABDNOR. You have reviewed the recent——

Dr. RAHN. Yes. the recent reports.

Senator ABDNOR. Would you like to submit a statement as soon as you can or would you have anything you want to add to this? If you want to do it today we will keep the record open.

Dr. RAHN. I am certainly working with the Fall River County people and submitting my input through them.

Senator ABDNOR. Thank you. Thank you all very much. I am sorry we can't go longer but we have so many more.

The next panel will be Mr. MacInnes and John Williams here from Nebraska.

STATEMENT OF JOHN WILLIAMS, DISTRICT MANAGER, UPPER NIOBRARA AND WHITE NATURAL RESOURCES DISTRICT

Mr. WILLIAMS. My name is John Williams, district manager of the Upper Niobrara and White Natural Resources District, a subdivision of the State of Nebraska that covers four counties in northwestern Nebraska.

Our responsibility assigned to us by the State legislature is to work with citizens in our subdistrict to conserve and develop natural resources.

Senator Abdnor, on behalf of our national resources district and citizens in northwest Nebraska, we sincerely thank you for bringing this committee hearing to Rapid City. It brought Government a lot closer to home.

There hasn't been much mention about the concerns of western Nebraska, but we share in large part what has been brought before you here by representatives of eastern Wyoming and southwestern South Dakota.

There are some things that have changed in Nebraska in the last couple of months. Recently the State supreme court has recognized that groundwater in Nebraska belongs to the public instead of being privately owned. So, I think we should expect more interest by our State government in what happens to groundwater levels in the Madison Formation in Nebraska in the future. We are concerned about the impact on our groundwater and the impact on the Madison Formation. We are also concerned about the impact on the Niobrara and North Platt Rivers and the streams and the flow of the White River in Nebraska. Both the Niobrara and North Platt Rivers begin in Wyoming and the Federal Government has invested millions of dollars since the days when the reclamation project started to develop the wise use of all of these rivers.

The ETSI project, I think, has probably shown very well the need for the development of an interstate compact so adjoining States will not be adversely affected by use of the Madison Formation water in another State.

Information we have recently received from the Wyoming State engineer's office is that there are now 249 permit applications for use of Madison water in the Madison Formation in Wyoming. I am also very encouraged by legislation I think that you have sponsored and I hope Senators Exon and Zorinsky will work closely with you.

Senator ABDNOR. They have cosponsored.

Mr. WILLIAMS. That would require the Corps of Engineers to study projects and the possible impacts on this region.

I want to respond to comments I have heard over the years by ETSI representatives that we don't have to be concerned about the loss of the Madison water because it isn't used for irrigation development, because it would not be feasible to do so. Well, us here in the West know that the only agricultural use of groundwater isn't just irrigation and I think we might not be using Madison water right away for irrigation, but certainly the drawdowns of the Madison Formation would have an impact on surface flows that are being used for irrigation.

There has been quite a bit of discussion raised this afternoon about the benefits from monitoring the impact that the ETSI project would have and I, from discussion with legal counsel in Nebraska, I don't think that that would probably provide very much protection.

Our concern is that one the Madison water is in an interstate pipeline carrying our precious water to regions south of here that the State of origin for this region would probably have lost any control of that water because it will become involved in interstate commerce and will be under the jurisdiction of the Federal Government and not the States.

That's why development of the Madison formation by other projects in the State of Wyoming are probably of poor comparison to the ETSI project. If water projects that develop the Madison formation water keep it within this region or within the State of Wyoming, or State of South Dakota, those States would probably have jurisdiction over that water in the years ahead.

I think everything else that I wanted to cover has been covered somewhere else.

Senator ABDNOR. We are happy to have that testimony. We appreciate the fact you have come all the way over here. Where do you like in Nebraska?

Mr. WILLIAMS. Chadron, Nebr.

Senator ABDNOR. You feel that your State is making a protest known to Wyoming over this? Are they being heard? Our Governor and the legislature have been very active. I was wondering what Nebraska is doing. Are they getting more aware of it and more concerned?

Mr. WILLIAMS. It is growing, but we live a long ways from the State capital and Governor Thorne has recently expressed an interest in working with the other Old West regional Governors, and I think having discussions with Jim Watt, and addressing some of these questions that are coming about.

Senator ABDNOR. They would arrest everyone's fears if they just went to the Missouri River.

STATEMENT OF JIM MacINNES, BLACK HILLS GROUP, SIERRA CLUB

Mr. MacInnes. My name is Jim MacInnes, chairman of the Black Hills group of the Sierra Club and conservation cochairman of the Sierra Club's Dacotah Chapter.

I appreciate the opportunity to present to you our views on energy-related water development in our area. Sierra Club vice president Ted Hoffman has presented our views on conservation and cost recovery. I wish to address the issue of prudent use of western water for energy projects.

Many of our individuals and groups in this area have united in opposition to the plan and the Black Hills group of the Sierra Club is one of them. In 1980 we passed a resolution opposing the use of Madison Formation water for transporting coal out of State in a slurry pipeline. Subsequently, the Dacotah Chapter and the Northern Plains Regional Conservation Committee, which establishes our policy for the Dakotas, Nebraska, Wyoming, and eastern Montana concurred in the resolution.

Why are we opposed to this use of water? We have two responses: The traditional one based on the scarcity and value of water in this semiarid region and a response that examines energy policy in a broader context.

The last 2 years of drought have brought home to us once again how precious our water is. Fish, wildlife, and aquatic vegtation fluctutate according to the supply.

Farmers, ranchers, and communities in our area must have dependable wells. Yet, the proposed use of Madison aquifer water for the slurry pipeline will draw down those wells and adversely affect surface flow. We will not at this time argue the adequacy of the environmental impact statement. The question is not whether the water table would be drawn down. The only question is: How much would it sink?

We feel that this precious supply of water must be reserved for careful and conservative use by those who have traditionally relied upon it: The residents of this area, the farmers, the ranchers, and the communities. Considering that this region is semiarid, it seems frivolous to us to use groundwater for a slurry pipeline. Considering the likely adverse effects on agriculture, fish and wildlife, recreation, and tourism we are convinced that the use of Madison formation water for this pipeline is completely unacceptable.

We would not necessarily oppose the project if the water could be supplied in a way that would not cause environmental damage. Of the water sources discussed in the EIS, we would favor the waste water alternative water supply system, if there would be no problem with downstream water rights. This is clearly the best environmental choice if the new powerplants are indeed needed.

We have just seen a copy of Senate bill 1525, introduced by Senators Abdnor, Pressler, Exon, and Zorinsky. As you may know the bill directs the Army Corps of Engineers to study the effects of a coal slurry pipeline on the Madison aquifer, requires a 90-day waiting period after completion of the study before Federal rights-of-way or permits may be granted, and forbids the granting of any Federal right-of-way or permit if there is a likelihood of significant drawdown, unless the Governors of each affected State concur.

I have polled the members of the Black Hills Group's Executive Committee. We unanimously favor this bill which appears to offer a strong protection against misuse of Madison formation water.

In the next part of our response we would like to present for your consideration a view of energy-related water development in a larger context.

First, I would like to point out that energy projections indicating the need for new generating plants have often, in recent years, proven to be much overestimated. We do not necessarily contend that this may be the case here. Why do the projections sometimes fail? Because people are using energy more wisely. Energy efficiency and the conservation are the hallmarks of this wiser use of energy.

Recent polls indicate great public support for and confidence in conservation as an energy source. I will mention two such polls: A Union Carbide survey made in 1980 and a National Geographic poll released in February 1981.

What does energy efficiency and conservation have to do with wise use of scarce Western water? Simply this: The West, according to some scenarios, is to become the energy supplier for the Nation. Electric generating plants use a lot of water. The unproven synthetic fuels technology uses enormous quantities of water. Shouldn't we do our best to avoid unnecessary use of our limited water supplies?

We submit that the way to do this is through a national energy policy that emphasizes efficiency, conservation, and renewable resources. Conservative studies indicate that this approach will provide the energy we need more quickly, more cheaply, with less social and environmental disruption and fuller employment than any other policy. I will cite three such studies: Energy Future, the report of the energy project at the Harvard Business School, the Department of Energy's Solar Energy Research Institute study, recently made public by Representative Richard Ottinger, and an electric energy conservation study prepared for the Bonneville Power Administration by Skidmore, Owins & Merrill. There are many other such studies. Further support of this point of view is provided by the fact that many utility companies are now actively promoting the conservation option.

One of the beauties of this efficiency-conservation approach is that Western water can be saved for agriculture, for recreation, for wildlife habitat. The water must not be wasted for power generation when there is proven better way.

Let me guote from the Sierra Club water policy:

> New energy developments should not be allowed if fish and wildlife habitat, water quality, instream stock watering, scenic and recreational values, or existing agricultural operations would be significantly damaged. Aquifers must be protected from depletion or degradation. Development of alternative energy systems requiring minimal water supply should be encouraged.

We in the Black Hills Group support that concept and we hope that you in your deliberations will consider the whole picture of energy-related water use of which the ETSI coal slurry pipeline is but one part. Again, we appreciate and support the efforts of Senator Abdnor and his colleagues to protect Madison Aquifer water. Thank you for this opportunity to present our views.

Senator ABDNOR. Thank you. We are happy to have your statement.

Ed, we have kept you waiting a long time today. We always say we save the best for the last.

Mr. GLASGOW. At this point in the day we get into the "me too" or whatever you want to say that hasn't already been said.

Senator ABDNOR. Let me assure you the whole thing will be put in the record, so say what you want to.

STATEMENT OF ED GLASGOW MANAGER BLACK HILLS CONSERVANCY DISTRICT

Mr. GLASGOW. Thank you, sir.

In consideration for you and everyone present I am not going to read my entire presentation. I would like to, however, instead of reading this statement, I would like to submit it to the record and make a few comments, if I could, please, because I think probably at this point in time a little perspective is important.

I would like to give a little background of the Black Hills Conservancy Subdistrict.

I think it is important to note that the Black Hills Conservancy Subdistrict actually grew out of and was created out of a sense of need of the people of this area for bringing Missouri River water into western South Dakota. That was over 15 years ago that we first looked at the concept and that was effectively shelved until the energy crisis of 1974 in which a new arena opened up and that said that when the energy rich fields of eastern Wyoming were to be opened up that there would be water requirements there.

As we have looked at this and proceeded with the studies with our sister organization, West River Conservancy Subdistrict, it became apparent there was a conceivable concept of importing water into those energy rich fields across South Dakota, so with broad responsibilities, that being water conservation and development, we see two different facets of that being developed.

First of all, water development, bringing water into western South Dakota to meet these needs that are so important. This is why this West River Aqueduct has had such significant importance to our board. So, we looked at that as being significant.

On the other hand we look at the matter of water conservation and I don't believe there is a person in western South Dakota that you could talk to that could approve of the lowering of the Madison Formation and depleting of water supplies that our citizens so badly need. I don't think there is anyone that could do that.

So, we come back to seemingly the first order of priorities as far as our subdistrict, as I have said, to turn the interest of energy transportation systems to a West River Aqueduct that would meet their needs but also allow these needs to be met of these people in western South Dakota that need water so desperately, and also preclude the use of water from the Madison formation.

In this regard we get caught in a kind of "catch 22" situation as far as the WET system is concerned because of the fact that we see the apparent obvious benefits of allowing this system to proceed and show it as feasible and allow it to develop, and they are the first people who put up their hand and said they would be a potential customer of the West River Aqueduct. Although there is a great deal of activity in the coal fields only one company has raised their hand at this point to say they would be willing to make such a commitment: That is ETSI. So, we have watched this arena and our interest in ETSI has been many-faceted, primarily because they prove to be a potential customer to allow the water to be brought into western South Dakota to meet so many of these needs and we feel, however, that the West River Aqueduct is the most apparent alternative, would bring the most benefits as far as objectives of our subdistrict are concerned.

Senator, we have worked with you for many, many years now. We appreciate you and your good staff and I just want to assure you at this point we are going to continue to work with you and we make our offices available to you and your staff at any point we can be of assistance to you.

Senator ABDNOR. I appreciate that. You are one of the real pioneers in this and have followed it all these years and we are going to need your expertise more and more.

Mr. GLASGOW. It would be such a blessing to have water in West River country plus serving a good cause for industry, too, and hopefully we can prevail on some other people to realize what it would mean and the damage it would do to go the other way.

STATEMENT OF GRETCHEN SPRING

Ms. SPRING. I am bottom man on the totem pole, or woman, however you want to put it.

Senator ABDNOR. We always wind up with the real power.

Ms. SPRING. First of all, I am dealing with the Black Hills area. That's where I have lived most of my life. My husband and I own and operate a tourist-oriented shop there as well as we raise cattle and this area I am quite concerned with because I feel that the Environmental Impact Statement has more or less just pinpointed it as a small, very unaffected area that is not going to be affected by this at all.

Chapter 3, page 18, it says that the discharge from the Madison Aquifer system flows into springs. Groundwater discharges from the Madison Aquifer in the Black Hills region in springs and streams located in or near the streams of the region. In addition, groundwater flows out of the Black Hills region in the Madison Aquifer to the east and northeast, then down below it names all the creeks that it is going to affect: Sand Creek, Crow Creek, Eagle Creek, Rapid Creek, and all of the major creeks and streams that are in the Black Hills.

I don't know how many of you have been to the Black Hills or are familiar with it. I know that you are, Senator Abdnor, but, for the record, I would like to say that the Black Hills is an oasis in a semiarid region. The length of the Black Hills is 100 miles by 50 miles at its widest point. It contains 6,000 square miles and it is one of the oldest formations of mountains in the North American Continent.

In this area we have a great number of different varieties of animal species, elk, deer, mountain goats, turkeys, eagles, all kinds of birds. You name it. Anything that is to do with the forest is in this area.

The streams and creeks have both trout and rainbow trout. Should you give ETSI, or whoever has the power to decide this, our water? The animals will be the first to leave. Then our ponderosa pine, spruce, and groves of aspen will die. The Black Hills doesn't receive an adequate rainfall for the survival of not only the trees but all the shrubbery, grass, wild flowers, and other vegetation.

Next, our fish will all die because of all the creeks and streams in the Black Hills are spring fed from the Madison formation. This area is very delicately balanced and relies almost entirely on the Madison. Not only will the terrain be desolate and adversely affected by it, it will no longer be a haven for backpackers, hunters, fishermen, campers, and visitors.

And last but not least this decision affects three major industries of the area. The No. 1 industry in the Black Hills area is tourism. This supports many families directly and indirectly in western South Dakota. Also with the trees gone another important industry dies with it: lumber and logging. And, of course, ranching will be significantly hurt. Both of these industries are a major part of the economy of the Black Hills. After you take the animals, and the trees, and water, and our major industries and leave the hills desolate and barren there isn't going to be much left.

This alone is reason enough to deny ETSI use of our underground water, a valuable resource that we must learn to conserve for future generations to come, a resource that is not inexhaustable.

The questions that I ask you and anybody that has anything to do with this decision: Could you or anyone else live with that decision knowing what will take place and what you have left for generations not born yet? And, were you aware of the severity of the impact that this is going to have on our beautiful serene Black Hills?

No. 3, how can the State Legislature of Wyoming, not the people of Wyoming, give away water that also belongs to the people of South Dakota, Nebraska, North Dakota, Montana, and also runs up to Canada? I think this should be a Federal concern.

I thank you for coming out here. I know none of us or very few of us could afford to go to Washington for you to hear our concerns and you have given us this opportunity which many of us would never have had to express our opinions. Thank you.

Senator ABDNOR. Thank you, Gretchen.

I think that is the only way to get to these people. As I said earlier, we get some excellent people testifying in Washington, but not the ones that are at the grassroots level. Through all these hearings we have held it seems like every area we go to has a different concern but it is good to get out and listen to the people. This is all going to be in the record.

Let me ask you one thing: Like the panel just before you, none of you are opposed to ETSI as you are opposed to them taking the water?

Ms. SPRING. Yes. I think that there are other alternatives offered to ETSI and we are not against ETSI per se in using the coal. It is them taking the Madison water that we feel is so vital to these four States. I don't know, there has been some talk, I would say, on the grassroots level that they are after our water instead of the coal, and I believe that. This water is good water and there is no reason that they could not use the Oahe River water because it ends up in the gulf anyway.

Senator ABDNOR. Thank you.

Mr. WILLIAMS. There is just one concern that we have had in that respect in the granting of eminent domain, if you were to grant the right of eminent domain to the coal slurry pipeline that was going to use river water. You would, perhaps, be granting the right of eminent domain, and if other companies would want to use Madison formation water you could be opening the door to the next one to go ahead and use Madison water.

Ms. SPRING. I think eminent domain, you should look into it.

Senator ABDNOR. Thank you.

Mr. MACINNES. I want to emphasize I hope it will be considered of a larger energy policy and how necessary it is going to be as to ETSI. We don't oppose it, of course, but we would like to be convinced that the energy policy as it is pursued is the most efficient one.

Senator ABDNOR. Thank you all. I think there were some people in the room who wanted to speak.

STATEMENT OF KAREN HANES, BLACK HILLS ALLIANCE

Ms. HANES. I am Karen Hanes and I am speaking for the Black Hills Alliance. That's a local group.

I have just a few concerns that nobody else really addressed too much, and one of them was the export of coal that has greatly increased. They have been increasing at 11 percent annually and a world coal study found that American coal could provide the world with one-half to three-fourths of its energy needs by the year 2000. And I kind of question how much we really want to do that. Is that good for us to do that?

I also question that energy alternatives and conservation are not stressed and other studies said by the year 2000, 45 percent of our energy consumption may be used up for the generation of electric power, which, to me, seems really it just doesn't make any sense.

Another issue that I wanted to address is just environmental commonsense. While it is true that a pipeline makes more environmental sense then a huge coal-fired powerplant or coal gasification plant, it is still not saying that much. What is the sense in using a transportation form which eats up 1 ton of water from whatever source for every ton of coal shipped and employs very few people, as opposed to the railroad, for example, which uses no water and employs more people and the tracks are already there? The railroad is already moving coal.

I also question the need for sending coal to a place like Arkansas that's very close to the Appalachian Coal Belt. It seems like a long ways for coal to go from here.

The final thing I would like to address is that western South Dakota is involved in the Fort Laramie Treaty of 1868 which is right now an unresolved issue and a lot of people are talking about allocating South Dakota water for this or that, and I don't think that can really be talked about until that issue is resolved. And it kind of concerns me that there were apparently no Indian people invited here to speak regarding their concerns for that.

Senator **Abdnor**. Thank you for those comments. We appreciate them.

Are you opposed to ETSI coal altogether?

Ms. **Hanes**. My feeling is that companies are telling us, "We will need this coal for our energy self-sufficiency," and I think a lot of it is not really going to that. It is going all over the world and we are exporting it, and I feel that that corporation is like those involved in ETSI, they are so large and they have holdings all over the whole world, and they are going to benefit no matter what decision is made, and it is not going to hurt them that much if they don't get to have a pipeline. They will do it somewhere else.

Senator **Abdnor**. Thank you.

Fred.

STATEMENT OF FRED BRADY

Mr. **Brady**. Thank you, Senator. I think it is great for you to come out here.

My remarks will be quite brief. I believe a couple things were not brought up in this hearing that I think are quite important. It was mentioned by the ETSI representative that Madison waters are too expensive for irrigation for farmers or ranchers to use. That is not the case in the northern Black Hills. There are, I am sure, more than 20 or 25 wells into the Madison right now that are being used for irrigation. This is not to say they are inexpensive, but in my own case I have a well in the Madison and I know that if the water level were to stay where it is now or was in the last couple years, that it ~~would~~ pay for my whole irrigation system including my well, which is $25,000 or $30,000, my irrigation pipeline, my construction equipment to put the pipeline in, a matter of 4 or 5 years to pay that initial cost.

However, I also know that in the last 2 years that the water pressure in my Madison well has dropped considerably. Even last year I could irrigate a field running 28 sprinklers just by the pressure from my Madison well. This year I can only run 16 sprinklers; a matter of 1 year.

Now, I know that part of that is due to two of my neighbors who have drilled water wells into the Madison within the last year within 2 or 3 miles of my place. I feel it is partly because of the eight wells that the city of Gillette has drilled into the Madison formation just across the line into Wyoming. This is not to say that I am objecting to the city of Gillette taking Madison water. I think that's what our water is for, even though I personally don't like it, I don't object to their using it because that water to me is still being used by the local people in this area where the water is.

The other thing that it seems to be that we really forget quite often is, like, if the city of Gillette uses this water, or a farmer, or irrigator, or rancher, or a city, municipality uses Madison water, and even though this part will deplete or lower the pressure or the flow, that water is not lost forever because the city of Gillette uses it, it goes back into the ground and sprinkling the lawns it goes back to the sewage system, it goes back into the river running through there and it becomes a reservoir for boating or recreation, and maybe farther downstream the farmers irrigate and we get three or four shots at that water. It isn't like putting it in a pipeline and hauling it down there, and I think that's one of the real important things that we haven't thought about. We are using that water three or four times here locally but once it is gone, it is gone.

I know my pressure has dropped many pounds in the last few years. I know my neighbor's has. There is no documentation or evidence.

I have been engineering wells into the Madison for over 30 years and I have been involved in probably 400 or 500 wells into the Madison throughout eastern Wyoming, Nebraska, North Dakota, South Dakota, and southeastern Montana. So, I have a background. I am not speaking just from what I read out of EIS, although I did read that, and I don't believe it.

I think it is great for you guys to come out and I appreciate this opportunity.

Senator ABDNOR. How long have you been using wells for irrigation around here? Is that fairly new?

Mr. BRADY. Wells into the Madison?

Senator ABDNOR. Yes.

Mr. BRADY. I can think back over 20 years ago when I engineered wells into the Madison in Wyoming for irrigation. More than 20 years ago, yes sir.

Senator ABDNOR. I didn't realize that.

Can you tell the difference from the time you shut off from the time you start that some of the pressure comes back?

Mr. BRADY. Last year I could shut my well off, as an example, and in a period of 12 to 14 hours my pressure was 117 pounds. In a period of 12 to 14 hours my pressure would come back to 117 pounds. Now, if I shut off my well, it will come back to about 107 or 108 pounds in 4 or 5 days. So, there is a terrific difference in just the last year or two or three.

Also, a lot of the fellows brought up that the relation between the upper aquifers, like, the Inyan Kara, or Lakota, as they call it, I have neighbors now that are in the Lakota formation wells 600, or 800 feet deep, 900 possibly, and when your neighbor a mile and a half will pump out of his Lakota, his well had a drop from 600 gallons a minute to 300 gallons a minute in a period of 12 to 14 hours, so we know there is a correlation real close and I can't understand these people that keep saying there is nothing to go by, no documentary evidence. We have got lots of it.

The State water resources commission, I talked to him about 6 or 8 months ago and they said they were going to try to get an appropriation through the State legislature to drill some wells that they could monitor. They are trying to get an appropriation of $200 million from the State and I said, well, I think that's a waste of the State's funds. All you have to do is go to the present ranchers or farmers and if they don't have a pressure gage on their well you can provide them with that pressure gage and I am sure that everyone of us that have many, many wells into the Madison or the Lakota, or any formation, those farmers would be very tickled to weekly or monthly monitor the pressure and the flow in their wells.

The State doesn't have to spend the money. We do have the wells. We don't need any more test wells. The State has had a test well for 40 years. We have them. All we have to do is monitor them and we would all be tickled to do it. I tried to tell them. We can do it ourselves. We don't need the money from the State.

Senator **Abdnor**. You certainly have experience with wells.

Mr. **Brady**. You bet. Thank you.

Senator **Abdnor**. That concludes our testimony here today.

We had a good audience sitting for quite some time and we thank you for the interest and turnout. This will all be made a part of the record. Thank you all. We stand adjourned.

[Whereupon at 4 p.m. the subcommittee was adjourned to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT OF TESTIMONY PRESENTED TO THE U. S. SENATE COMMITTEE ON AUGUST 14, 1981 IN RAPID CITY, SOUTH DAKOTA.

I am Representative Don Ham, Past Chairman of the West River Aqueduct Task Force, Vice Chairman of the National Conference of State Legislatures Natural Resources Committee and Majority Whip of the South Dakota House of Representatives.

Having grown up on an irrigated ranch in the Rapid City area, a water deficient area, I have seen what happens when springs and creeks flowing out of the Black Hills go dry. It has a tremendous detrimental economic effect on this area and on the entire state. I am very concerned about the potential negative effect on our water tables throughout this region if 15,000 - 20,000 acre feet are withdrawn from the Madison Formation annually. I believe there will be other technical testimony that will substantiate the concern.

It doesn't make much sense for those of us in Wyoming and Western South Dakota to support any plan to use water from this deficient area when there is an excess of at least 8-10 million acre feet and a total of 21 million acre feet flowing through our state in the Missouri River in an average year. It surely doesn't seem logical to gamble with an unknown amount of draw down in the Madison Formation (there have been studies indicating from 50 to 500 feet) especially when we know that drawing 20,000 acre feet from Oahe Reservoir will only draw it down 3/4 inch in a year's time.

Although it seems obvious that coal slurry pipelines will be constructed and that large quantities of water will be needed, it also seems obvious that the best alternative, which will benefit many communities and rural water systems in South Dakota and Wyoming would be the concept of the West River Aqueduct, utilizing excess, replenishable water from the Missouri River. Another possible alternative would be utilization of waste water from this area in the WET system plan, especially if that plan would eventually lead to the development of the West River Aqueduct and other water development in South Dakota.

I am convinced that one of the next major crises facing the United States will be the water crisis and those of us in arid regions will need to conserve every source in our area for the highest priorities, domestic and agricultural purposes. Therefore, it makes more sense to use excess, replenishable sources for industry, especially if the plan can supplement domestic supplies with higher quality water than is now available.

I would like to thank the Committee for holding this hearing in this area and showing their concern in the controversy.

Thank you.

I am Kay S. Jorgensen, state representative from District 26, Spearfish, South Dakota. I am here today to express my concern and those concerns of my constituents regarding the use of Madison water for any coal slurry pipeline. I've not been in public service long. In that time, however, I've never seen an issue of more importance to our region, nor have I seen one which was met with more uniform concern.

The use of groundwater is of concern everywhere. The problems caused by the mining of the Ogallala Aquifer should be forewarning to us all that misuse and overuse of these waters cannot continue. The judgment made in 1974 by the Wyoming Legislature to permit industrial use of Madison Formation water as proposed by ETSI has consequences not recognized at the time. Now that more is known about such problems as lowering the capacity of existing wells, reducing stream flows, and otherwise endangering domestic and agricultural water resources, we are all obligated to find a solution.

In that vein Spearfish, for example, has taken a two-pronged course of action. The Spearfish City Council has authorized the expenditure of $1,000 to be used by the Save Wyoming Water Association to fight the use of Madison water by ETSI. Spearfish has also approved a resolution supporting the Wet System as an alternative water source.Lead, Whitewood, Belle Fourche, and other communities in the region have taken similar action.

This is typical of the attitudes in this entire region. People want to provide alternatives, not act as obstructionists. We all recognize the need for the development of our nation's energy resources. Just the same, we recognize that these resources must be developed carefully and with much consideration for the future.

The ramifications of drawdown of the Madison Formation in relationship to agriculture are obvious. Not as often discussed are the potential problems created by the loss of water to the industries of tourism and recreation. After two economically slow years tourism has experienced a tremendous resurgence. Many of those travelling, now as in the past, are looking for quality recreational areas and natural attractions provided by the Black Hills. We know that blue ribbon trout streams in this area are dependent upon ground water to replentish their water supplies. McNenny Fish Hatchery in South Dakota and Ranch A along Sand Creek in Wyoming are directly or indirectly dependent on the Madison Formation for water. A depletion of this resource would not only be a tragedy to these fisheries, but also to an industry. For these reasons the American Fisheries Society's executive committee has recommended the adoption of a resolution opposing the use of ground water as a slurry medium by ETSI. (This resolution is attached to my comments.)

These are only a few of the issues that should be cited in support of the argument that under no circumstances should ground water be used for such industrial purposes as slurry lines. For these reasons I would like to urge the following action:

1. That the Madison Formation not be utilized for industrial purposes such as slurry lines.
2. That alternative sources such as the WET System, the West River Aquaduct, methanol and all such options be considered. These sources should be used only as alternatives, and NOT as back-up sources.
3. That a meeting of the five states of South Dakota Wyoming, Nebraska, Montana, and North Dakota work toward a comprehensive plan for water development. (The resources that exist are no respectors of state boundaries. Therefore, we must work together to solve the issues created by these boundaries.)

As Senator Abdnor expressed in his letter explaining SB 1553, "There are no guarantees in any event, but only by joining together and emphasizing our points of agreement can we enhance chances of a positive outcome." I cannot say it better. Thank you all for your assistance in this matter.

AMERICAN FISHERIES SOCIETY

DRAFT RESOLUTION

RESOLUTION OPPOSING USE OF GROUND WATER AS A SLURRY MEDIUM BY ETSI:

WHEREAS, Energy Transportation Systems, Inc. (ETSI) proposes to withdraw 20,000 acre feet of water per year from the Madison formation for the purpose of transporting coal to Arkansas, and

WHEREAS, ETSI is not the only company proposing large industrial utilization of ground water in the energy basins of the Northern Plains, and

WHEREAS, ETSI's water well field will be located in Wyoming, but on the South Dakota border, with the principal recharge area being the Black Hills of South Dakota, and

WHEREAS, the streams in the Black Hills are already under the stress of reduced flows as a result of various factors, including enclosed canopy, irrigation, mining, municipal withdrawal, and periodic drought, and

WHEREAS, any further reduction in stream flows could seriously impair fish (trout) reproduction and stream holdover capacity for trout and other species, and

WHEREAS, ground and surface waters are interrelated and the withdrawal of ground water will significantly affect the water supply for the valuable fisheries resources of the region,

NOW, THEREFORE, BE IT RESOLVED by the American Fisheries Society, that we oppose the utilization of ground water for such massive projects as the industrial transportation medium proposed by ETSI in this water starved area of the country.

AND BE IT FURTHER RESOLVED that such large withdrawals of water from an aquifer which serves more than one state without mutual agreement is contrary to the public interest.

AND BE IT FURTHER RESOLVED that other coal transportation media be examined, including such alternatives as the Oahe Pipeline, the WET system and a combination of other surface resources with reduced impacts on the fish and wildlife resources of the area.

HOT SPRINGS, SO.DAK.
AUGUST 12,1981

TO WHOM IT MAY CONCERN:

My name is Jack Manke. My wife and I own a 5300 acre ranch eleven miles southeast of Edgemont, So.Dak. I was born and raised on this ranch and have operated it since I grew up. Currently I am also serving as State Senator from District 25, representing most of Shannon and all of Fall River and Custer counties.

Ever since I can remember Plum Creek, the creek running through our ranch was a live stream with water running the year round, as did the Cheyenne River on the north side of the ranch, Hat Creek a few miles to the east and several other streams and springs in the area. Today these streams are reduced to dry draws,some with just a few spring holes along them, except for the Cheyenne River which does run part of the year. This is caused by just the present day use of water for agriculture and domestic use, lowering the water table.

I am very much opposed to the use of the Madison formation water for industrial use, especially when the water goes out of the area, never to recharge the aquifer in this semi-arid region.

I am also very much disatified with the final E.I.S- because I cannot see where it especially addresses the people or livestock in the area. On page 2and 3 of the E.I.S. summary it talks of a drawdown of 100 feet in a 3400 square mile area. This is an area of about 60X60 miles, which includes many people and thousands of head of livestock and wildlife. It would affect the Cascade Springs, the Hot Springs and the Cheyenne River. This is the water supply for Hot Springs plus irrigation water in the Cascade are and the Oral irrigatiom project to say nothing of the tourism impact and the 18,000 head feed lot southeast of Hot Springs plus federal lands now being used for agriculture, wildlife and recreation. The drawdown of the Madison Aquifer will affect all of west river South Dakota, most of Wyoming, the northwest portion of Nebraska and parts of North Dakota and Montana. The Madison Aquifer is the last Aquifer in this area, there is no more water below- just granite.

All the hydrologists agree the upper aquifers in the area such as the Inya Kara, Lakota etc. are fed from the Madison formation. On our ranch we have five wells at a depth of about 200 feet into the Lakota formation. There is about 40 feet of this formation. The water does not rise in the wells, which indicates no pressure from below. It would be reasonable to believe that if the Madison draws down 40 feet, my wells would be dry. The next water is the Madison formation about another 2500 feet down. This would be the case with most of the area ranhes.

Use of the Madison water seems to definetly have an affect on the existing wells as evidenced when the two wells at the Black Hills Ordinace Depot came into being. These wells are appoximately 8 miles south of Edgemont South Dakota.

In 1970 some families moved back into the town of Igloo So.Dak. and started a feed lot and other related industries.
From 1970 to 1974 the shut-in head pressure on one monitored well in Edgemont came down from 86 PSI to 79 PSI. At peak producion these Igloo wells produced 500,000 gallons of water per day or less then 1.75 acre feet.(This would amount to 640 acre feet per year.) This amount of water was used for 20,000 head of cattle, 15,000 head of sheep, several thousand hogs, the town of Provo and the town of Igloo plus some ranch water lines. ETSI's well field which will be located 8 to 10 miles to the west of the Igloo wells will produce about 30 times that amount of water daily for the ETSI pipeline.
It should not be hard to imagine the impact this will have on the people, livestock and wildlife of this area.

On Page 8 (Final EIS) second paragraph on wild life, (quote) "The lack of available specific data precludes developing quantified predictions of impact as a result of changed flows. Some impact may occur, but because of the adaptibility of the species involved and the high rain fall experienced by the area, it is not felt that this would be a significant impact." (end quote)

Again this says nothing of the poeple and livestock and in checking with the weather station in Edgemont, the average rainfall over the last 30 years has been 13.7 inches per year.

Page 9, second paragraph,(quote) " Reduction in spring and stream flow in South Dakota as a result of the use of the Madison formation water could significantly affect the aquatic resources of the Black Hills region. The magnitude of the impact cannot be determined with available data." (end quote).

Page 9 last paragraph and page 10 first paragraph.(partial quote). During project operation the primary agricultural concern is the potential impact on irrigated croplands as a result of possible reduction in spring,stream and well flows. Without specific case by case analysis it is impossible to predict exact impacts that may occur on the agricultural sector."(end quote).

In the EIS all drawdowns are estinated by models. Hydrologists estimate drawdown over the pumping period from 300 to 2800 feet.
With all of the unknowns on drawdown, reduction of spring and stream flow and affect on people, agriculture, wild life and tourism, I do not feel that we can gamble with trial and error methods of the use of our last underground aquifer. Money does not replace water.

STATEMENT OF

WARREN R. NEUFELD

SECRETARY

DEPARTMENT OF WATER AND NATURAL RESOURCES

STATE OF SOUTH DAKOTA

BEFORE THE

SUBCOMMITTEE ON WATER RESOURCES

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

U. S. SENATE

AUGUST 14, 1981

I. Introduction

Mr. Chairman, I greatly appreciate the opportunity today to present a brief statement on water policy issues on behalf of the State of South Dakota.

A national awareness is emerging that our natural resources are limited and must be intelligently allocated if they are going to serve the general welfare of this country. Population growth, urban development and industrial expansion have become increasingly associated with serious water shortage and pollution problems in this country. The critical nature of these problems results from water being not only a natural resource that is vital to man's subsistence and activity, particularly his economic activity, but unlike other resources, it cannot easily be replaced in most of its uses. Thus, proper management of this resource is of the highest national priority.

While the proper management of this nation's water resources is of obvious federal concern, varying climatic conditions, population distributions, economic conditions, and land and water resource characteristics make unilateral federal control of water policy impossible. National objectives such as water conservation or water quality enhancement, though commendable can only be achieved by an integrated national policy that delegates to the states the increased administrative authority, flexibility, and financial assistance needed to ensure proper management.

In recent years, however, attempts at solving this vexing problem have met with little success. On February 3, 1978, Secretary of Interior, Cecil D. Andrus, met with the subcommittee of water management of the National Governors Association. The concensus of the Governors at that time was:

> "...any national water policy should be the result of a cooperative, national, not primarily federal, effort; that the new policy should strengthen the state's capabilities to manage; that the federal Government must be more flexible in its response to states; and that management should recognize regional differences in water problems and equity in the future federal water investments..."

The failure of the federal government to develop a national policy that embodies these principles has resulted in a national approach to water resource development that is lengthy and fragmented, that does not provide solutions for water resources problems at the national or state level, and that results in projects that have filtered through the system based primarily on political considerations. Additionally, each federal agency seemingly pursued its own policy and mission with little or no coordination with any other agency.

For any national water policy to be effective, decision-making responsibility for intrastate water development must be placed upon state governments. State governments would then have to establish the division of responsibility for action between state and local governments. On the other hand, the federal government's water resource management function should be to coordinate the efforts of all the affected Federal agencies and the states and to provide financial and technical assistance to ensure that the nation's water resources are guarded against misuse and are used to their fullest potential in the national interest. Because federal, interstate, and intrastate concerns with water and related land use will continue, mechanisms for federal-state coordination and comprehensive planning will be needed in the future. In order to assure the success of this coordination process, state governments must be involved in establishing the structure of administration and regulation that will eventually coordinate water usage.

The state responsibility in water resources management requires that the states have a major role in the administration of water programs and the subsequent expenditure of funds. The states must be responsible for establishing priorities and managing all areas of water resource development and use within state boundaries. However, for the state to take the lead in managing their water resources, increased latitude in federal financial assistance which allows the state to effectively and efficiently spend funds where most needed, is required. Flexibility in the initial structuring, and in later revising of programs if necessary, is essential for effective water resources management. Thus, we are encouraged that President Reagan's proposed policy of delegating to the states increased administrative authority, flexibility, and financial assistance will give the states the opportunity to resolve their critical water resource problems.

II. Congressional Proposals

We believe that the Congress is considering legislation which addresses the major concerns listed above regarding a national water policy. Specifically, I would like to briefly comment on S. 1095, the National Water Resources Research and Planning Act of 1981 and S. 621, the National Water Resources Policy and Development Act of 1981.

We believe that S. 1095, introduced by Senator Abdnor addresses the issues of coordinating water policy among and between the involved federal agencies and establishing uniform procedures and criteria for project evaluation through establishment of the National Board of Water Policy and the Office of Water Programs; provides for interstate and federal coordination through the creation of river basin commissions; and provides for State input into national water policy through the creation of a State Advisory Committee to work with the National Board of Water Policy. In addition, the bill provides for continuation of matching grant programs for state water resources management and water research. We strongly support continuation of these grant programs for reasons outlined below.

One-half of the State's water resource planning and policy development staff is supported by Federal funding through the water resources management grant program. Since Governor Janklow's Executive Reorganization of July 1, 1979, the State has developed an integrated water management system which I discussed with the Water Resources Subcommittee on April 22, 1981. In addition a list of 34 projects desired by the citizens of the State has been developed and adopted by the Legislature into the State Water Resources Management system which by State law establishes the water resource development needs and priorities for the State. The Department staff, working with State and local water resource leaders, is now developing a system for further prioritizing and implementing the individual projects. Based on the demonstrated accomplishments of the Department in water resource management, we feel strongly that the State of South Dakota's water management capabilities have been greatly improved as the result of effective use of the water resource management grant program. We also feel strongly that if the Administration and Congress are serious in giving the States a more meaningful role in the Nation's water resource policy administration, it is a good investment for the Federal government to continue providing matching grants to the States to provide stability and needed resources in the States' planning programs to assure that public funds are expended on high priority, worthwhile projects.

We believe that there is substantial potential for ultimately reducing the demands and need for construction of water projects in America through research targeted at techniques to allow sequential use or reuse of available resources, especially in industrial processes with large water requirements; to reduce irrigation requirements through improved management techniques, development of crop varieties with reduced water requirements, and use of evaporation suppressants; by developing acceptable aquifer recharge techniques; and by development of sound storage and delivery systems. However, in the near term there are areas that have substantial needs for development of additional water projects. The Federal government definitely has an interest in promoting long range research in water use efficiency and conservation which may provide solutions to some of the nation's water supply problems and which otherwise would not be conducted.

The water resources planning and development program in South Dakota would have to be reduced by approximately 50% from the present 17 staff positions if Federal funding assistance is eliminated. With the depressed economic conditions in the State and pressing fiscal restraints placed on the State Legislature, it is unknown if or when these losses in resources could be recovered by State funding. This loss would create a critical loss of momentum at a time when water resource planning is making significant progress and is crucial to the State's economic development. It is our understanding that the research effort at the Water Resources Institute would also be sevérly curtailed if Federal funding was eliminated.

As a concluding remark on S. 1095, we strongly support all the provisions of the Act except that which proposes that river basin commissions be empowered to establish priorities for the collection and analysis of basic data for investigation, planning, and construction of projects. We believe that the authority and responsibility for prioritizing water projects rightfully belongs to the Governor and elected leaders of each state, and that in no case, will those leaders willingly relinquish that role to an interstate entity. However, river basin commissions do have a meaningful purpose to serve in issue identification, long-range forecasting, and analysis of effects of individual states' water development plans on water availability and uses within the entire basin.

S. 621, introduced by Senators Domenici and Moynihan provides the basic concept to allow the states to take the lead in managing their water resources and establish project priorities, and allows latitude and flexibility in Federal financial assistance to allow the states to effectively and efficiently spend funds where most needed.

While the State of South Dakota agrees with the general block-grant approach outlined in this bill, there are several problems which South Dakota would experience with this bill. Specifically, South Dakota is unable to support section 102(d) of that bill, which obligates the states to pay or contribute in-kind 25 percent of the cost of construction. We cannot support this concept because of past failures of the Federal government to provide the compensation promised to the State under the Pick-Sloan Plan under which South Dakota lost from production, due to the mainstem dams, 536,875 acres of river bottom land. Under the Pick-Sloan Plan, South Dakota was to receive, in exchange for its loss of land, irrigation of approximately one-million acres. To date, no federally funded irrigation projects have been constructed. Thus, South Dakota continues to be faced with economic difficulties caused both by periodic drought and the semi-arid climate and is unable to provide mandatory cost sharing until the past debt is repaid. The economic difficulties and impacts of recurring. droughts on agricultural stability is discussed in detail in my April 22, 1981 testimony to the Subcommittee.

Further, it is the position of the State of South Dakota that the tremendous cost we have already borne for the benefit of others (the innundation of over 500,000 acres of prime river-bottom farm land) should be applied as credit toward any new Federal cost-sharing proposals relating to water development. We also believe it is improper to require additional cost-sharing as a condition of Federal assistance for irrigation development under the previously authorized and partially implemented comprehensive Missouri Basin Program.

Governor William J. Janklow only yesterday unveiled a proposed water development plan which he intends to actively pursue with the Reagan Administration and the Congress to provide Federally assisted water development in the State as a basis to fulfill the long-standing Federal commitment to South Dakota. The State intends to provide additional information on this proposal at the Senate Interior Subcommittee hearing to be held in Pierre on September 12, 1981.

In closing my testimony on National water policy, I would like to compliment the Water Resources Subcommittee under the leadership of Senator Abdnor on the effort, research, and deliberation by the Subcommittee and its staff in developing realistic and reasonable proposals for resolving the serious issues involved in directing National water policy.

III. Other Water Resource Issues of Interest to South Dakota

I would like to briefly address three other issues under the jurisdiction of the Subcommittee which are relevent to today's hearing and which are of interest to South Dakota. These are: 1) The Corps of Engineers budget and proposed activities in South Dakota, 2) The proposed ETSI coal slurry pipeline project, and 3) The Gregory County pumped storage facility.

Corps of Engineers FY'82 Budget

The Fiscal Year 1982 House Energy and Water Development Appropriation Bill contains appropriations for the Corps of Engineers to continue general investigation studies of the Missouri River, South Dakota, Nebraska, North Dakota, and Montana; the Eastern South Dakota and Upper Sioux River; and the Western Dakota Regions of South Dakota.

We strongly support continued funding for these three studies. We are particularly pleased with the progress and coordination between the Corps and the State on the Eastern South Dakota Supply Study which is providing very valuable information on water supply needs, water use, water availability, and proposed solutions to problems. We have also been advised by the Corps that the direction of the Western Dakota Study will be coordinated with the State and local governments to assure analysis of high priority needs and problems.

The FY'82 budget also contains construction funds to continue construction of the Big Stone Lake-Whetstone River project in South Dakota and Minnesota. This project which is aimed at flood control and reducing sedimentation and improving water quality of Big Stone Lake enjoys much local support from citizens and governmental officials in the area. In addition the State of South Dakota, in cooperation with the State of Minnesota and local governmental units, is developing an implementation program to further improve water quality of the Lake under the Clean Lakes Program pursuant to Section 314 of the Clean Water Act. The project is one of thirty-four which has been adopted by the State Legislature as part of the State Water Resource Management System.

Proposed ETSI Coal Slurry Pipeline Project

The State of South Dakota has taken a position of opposition to the use of Madison Formation groundwater by ETSI in its proposed Wyoming to Arkansas coal slurry pipeline project. This opposition is based on the results of the State's review and analysis of the environmental impact statement (EIS) for the proposed project which identified major impacts on South Dakota as the result of:

1) Lowering of the potentiometric surface (water level) of the Madison and other aquifers.
2) Reduction in stream and spring flows.
3) Deterioration of Water Quality.

A copy of the State's official comments on the EIS is available upon request.

In May 1981, Governor Janklow co-signed a letter with the Governors of the other states projected to be impacted by ETSI's withdrawals from the Madison formation requesting Secretary of Interior James Watt to defer issuing ETSI the necessary right of way permits until the states could evaluate the potential of utilizing other water supply sources for the project. In addition, Governor Janklow directed the Attorney General to investigate legal avenues to protect southwestern South Dakota water users from adverse impacts from ETSI's proposed withdrawal from the Madison formation.

The State, however, has not only voiced opposition to the use of the Madison formation water; it has also proposed two positive alternative water supply sources. These alternative sources are water from the Missouri River via the West River Aqueduct and sewage effluent from Black Hills communities and industries through the Wastewater Effluent Transport (WET) system. It is the State of South Dakota's position that either of these systems are viable alternatives as the primary source for ETSI's proposed coal slurry pipeline and that both are more environmentally acceptable to South Dakota. Based on the projected adverse impacts to South Dakota water users and the lack of complete knowledge on the Black Hills

Hydrology System, the State supports the two bills recently introduced by Senator Abdnor dealing with the ETSI project.

Gregory County Pumped Storage Unit

The State strongly supports authorization and development of the Gregory County multi-purpose project for hydropower generation, irrigation development, and rural water system supply. This project has substantial projected net annual benefits and is included in the State's Water Resources Management System.

We would also request that the Federal government consider sharing the net revenues from this project with the State in a manner which is equitable and which recognizes the obligation to South Dakota under the Pick-Sloan Missouri Basin Program.

Mr. Chairman, I would like to thank you on behalf of all of the citizens of South Dakota for conducting this hearing in our State so that we may have an opportunity to participate in the development of policy of such major importance as that dealing with our precious water resources.

Statement of Henry P. Caulfield, Jr.,
before the Water Resources Subcommittee, Committee
on Environment and Public Works, U.S. Senate, at
Rapid City, South Dakota, August 14, 1981.

My name is Henry P. Caulfield, Jr. For the past twelve years I have been a Professor of Political Science at Colorado State University; and, among other courses, I have taught each year a graduate course in the politics of water resources planning and management. During the drought of 1977, I was a member of the Governor's Drought Council; and, during most of the years I have been in Colorado, I have been a member of the Fort Collins Water Board and a member of the Areawide Waste Treatment Advisory Committee, Larimer-Weld Council of Governments, concerned with implementation of Section 208 of the Clean Water Act of 1972, as amended.

Immediately prior to my move to Colorado, I was Director, U.S. Water Resources Council, April 1966 to August 1969. From 1961 to 1966, I was Assistant Director and then Director, Resources Program Staff, Office of the Secretary, Department of the Interior; and, in these capacities, I was involved closely with former Secretary of the Interior Stewart Udall in the development of his legislativ and administrative policy proposals. In this connection, I was intimately involved with the Water Resources Planning Act from its earliest conception within the Executive Branch in 1961 to its enactment by the Congress in 1965. During most of this period, I was also Chairman, Interdepartmental Staff Committee to the ad hoc Water Resources Council created by President Kennedy in October 1961 to coordinate water matters within the Executive Branch pending creation of the Water Resources Council by statute.

It is on the basis of this background and experience, both in Washington and in Colorado, that I set forth briefly my general views on legislation pending before the Subcommittee, specifically, S.1095 and S. 621, before answering questions that I understand members of the Subcommittee would like to address to me.

S. 1095

With regard to S. 1095, I will confine my prepared comments to the proposed National Board of Water Policy, to the proposed Office of Water Programs within the Department of the Interior, and to the bill's basic policy direction--increased state responsibility for water matters.

National Board of Water Policy

In its consideration of the membership and functions of the proposed Board, the Subcommittee needs to be reminded that, historically, boards, councils, and interagency committees are alternative means to reorganization in order to achieve greater program coordination and unified policy direction. Thus, in choosing the alternative of a board composed, largely or wholly, of the heads of agencies involved in water matters, a decision is really being made that both "unification" and apparent administrative "chaos" are undesirable. Something in between, a board, is desirable.

The water functions of member agencies of a board need to be viewed in varying degrees as competitive and as potentially complementary. Heads of agencies are in an institutional position where, more or less, they are forced to be competitive with other agency heads and conflicts of policy and organizational interest arise. Without the active co-equal participation in affairs of a board by one whose job is to view knowledgeably the domain (here, water matters) as a whole, and to represent the general views of the President, resolution of conflict will be impeded and opportunities for complementary action will tend not to be realized.

Title I of the Water Resources Planning Act of 1965, which created the Water Resources Council, did not provide for an independent chairman in the deliberations of the Council. Instead, successive Presidents assumed that the Secretary of the Interior could provide adequate and appropriate leadership. The only independent role was provided by the Director of the Council's staff. If the relationship between the Director and the Secretary is close; and, in his role as chairman, the Secretary has confidence in the advice of the Director (as was largely the case between Secretary Udall and me), then the Council could function reasonably well, except with respect to conflicts with the Bureau of the Budget (now Office of Management and Budget). My successors as Director were not so fortunate as I. None were close to the successive Secretaries of the Interior, despite the fact that they were "members of the Administration" as "Schedule C" officials, G.S. 18. Moreover, they had great difficulty and, generally, little success in getting the Chairman to call or attend Council meetings.

One of my successors overcame this problem by getting assistant secretaries to operate effectively as a "council of alternate members." Toward the end of the Ford Administration, I am informed, they reached agreement on the vexing, cost-sharing problem for recommendation to the Congress in response to Section 80 of the Water Resources Development Act of 1974. But this agreement was derailed by the Office of Management and Budget.

For much of the Carter Administration, I am informed, water policy was largely determined by representatives of the Secretary of the Interior, of the Office of Management and Budget and the Council on Environmental Quality. The institutional arrangements of the Water Resources Council and the role of its Director were largely by-passed.

An independent chairman of a National Board on Water Policy appointed by the President, with the advice and consent of the Senate, would overcome what proved to be a critical defect in Title I of the Water Resources Planning Act of 1965. The independent chairman would be an official of stature equal to the members who are agency heads, and he would have independent access to the President and top officials of the Executive Office of the President. When he called a meeting where their agency interests were involved, they would not fail to attend.

Office of Water Programs

S. 1095 proposes that an Office of Water Programs, within the Department of the Interior and under the supervision of the Assistant Secretary for Land and Water Resources, perform certain specified staff functions that relate to the water field generally, not just to the institutional concerns of the Department of the Interior.

I hardly need to remind the members of the Subcommittee that any staff tends to view its assignments from the policy and professional perspective of its institutional setting and from the perspective of the interests of the organization of which it is a part. Thus, the Office of Water Programs would respond to its assignments from the perspective of the Department of the Interior.

Initial staffing policy of the Water Resources Council specifically provided that staff be recruited from the principal Federal water agencies, the states, and from all professional disciplines involved. And this policy was fully and faithfully implemented. By this and other means, the independence and overall point of view of the staff were furthered.

In assigning functions to the Office of Water Programs, distinction should be made between the functions which could best be performed with an overall institutional setting and those which do not require this perspective.

In my judgment, all the functions assigned in S. 1095--periodic assessments of national water needs, administration of state and commission planning grants, and administration of research grants--require the multi-agency, independent perspective of the Board and of staff directly working for the Board.

Increased State Responsibility

Building upon, and going beyond, the Water Resources Planning Act of 1965 and the Water Research and Technology Act of 1978, S. 1095 would move Federal policy toward placing greater responsibility upon the states for water matters--through a State Advisory Committee, through state matching grants for "specific plans" for management, conservation and development of water resources, and through the requirement that grants to state research institutes under Section 301(3) (1) be "on a cost-sharing basis" with the states.

I generally agree with the policy proposals themselves and the policy direction of S. 1095. My only disagreement, in part, is that S. 1095 does not go far enough in the direction of increased state responsibility as I will now make clear in my comments on S. 621.

S. 621

S. 621, a bill to authorize the National Water Resources Policy and Development Act of 1981, is a very substantial improvement over earlier versions of the "Domenici-Moynihan bill," in my opinion. It is no longer a bill to provide for just a demonstration. It provides a comprehensive scheme for reform of Federal water resources development policy. And, in so doing, the bill comes to grips, within its apparent premises, with certain difficult problems. Both Senator Domenici and Senator Moynihan and their staffs should be congratulated for their imaginative, forward-looking product that took a great deal of hard work to produce.

My basic differences with the bill involve its basic premises:

(a) That the professional talent of the Army Corps of Engineers, the Bureau of Reclamation and the Soil Conservation Service are still required by the Nation to plan intrastate projects;

(b) That states and local governments are now incapable of taking primary financial responsibility for such intrastate water resource development projects as will be needed in the future, largely municipal and industrial water supply projects; and

(c) That combining Federal policy and programs with respect to water quality enhancement and water resource development at the intrastate level is undesirable or too difficult an undertaking at this time.

Briefly, my reasons for disagreement on these three premises relating to intrastate activities are as follows:

Federal Professional Talent Not Required

When the Army Corps of Engineers civil functions were instituted in the 19th century, when the Reclamation Act was enacted at the turn of the century, and when the small watershed projects of the Soil Conservation Service were started in 1944, no doubt it was essential that Federal professional talent be organized and developed to undertake the tasks Congress wanted to see accomplished, including intrastate projects. Professional talent was in very short supply.

Today states have increased their own professional staffs in recent years with help from Title III grants under the Water Resources Planning Act of 1965. Also, state water research institutes have helped to increase state and local competence since the mid-1960's.

This state talent, of course, is to say nothing of the abundant talents of private consulting engineering and private multi-disciplinary consulting firms that are now available to help solve state and local water problems. Such private organized talents were largely not available earlier in this century and before.

Substantial reductions in the number of Federal employees, an objective sought by the Reagan Administration, could be furthered by de-authorizing Federal planning functions with respect to intrastate projects.

Federal Financial Assistance Not So Greatly Required

Again, when the current water resources development programs were established earlier in this century and before, there is no doubt that Federal financial resources were required to bring about the great interstate and intrastate water resource developments that have contributed importantly to the general welfare of our country. But this situation has changed.

Today, private institutional arrangements for financing many types of public works by means of revenue bonds are available to states and local governments throughout the Nation. No part of this Nation is so underdeveloped that revenue bonding arrangements are not available at a price. To the extent that risks are perceived that make such a price too high, state or Federal bond guarantee programs could be instituted.

Federal policy with respect to intrastate water resources development should be founded on the premise, in my view, that states and local governments can largely finance their own intrastate water developments. With repayment of bond interest and principal based upon user charges, local governments, regional public districts and states should be expected to finance their own municipal and industrial water supply needs. Increasingly, also, they should be expected to finance the cost of sewage treatment facilities and water reuse schemes. Fundamentally, rehabilitation schemes of municipal water systems should be based upon reformed financial management with revenue bond financing supported by user charges.

I realize, however, that Congress may realistically find that such presently needed rehabilitation schemes cannot go forward without some federal subsidy. I am not, on principle, against such subsidy. Also, I am not against cost-sharing for fish and wildlife enhancement or recreation, which are difficult to finance by user charges. With respect to flood hazard mitigation, I believe--consistent with current federal policy--that non-structural measures should be the first line of defense. But I would not oppose cost-sharing of flood control works as a necessary part of an overall flood hazard mitigation plan. At this time, I see no national purpose to be served by federal subsidy for newly irrigated lands.

In summary, federal policy should be based on the promise that financial resources available to states and local governments can largely finance future intrastate water projects. The Congress, in only a very few, carefully considered types of cases, should provide for federal cost-sharing. States and local governments in my view are generally capable of financing much more than the 25 percent called for by S. 621.

If my views are found by the Congress to be workable, the authorized sums for water resource investments in Section 103(c) of S. 621 could be very substantially reduced. Such reduction of claims upon the federal budget is clearly in accord with the objectives of the Reagan Administration and the present Congress.

Combining Water Quality Enhancements and Water Resource Development Programs

The physical and economic realities of conjunctive use of ground and surface waters both with respect to enhancement of supply and water quality increasingly call for planned conservation and reuse. Institutional arrangements at all levels of government should be made compatible with these realities. The Federal government should abandon its historic separation of water supply and water quality functions as some local governments have done already.

I am well aware of the great political, technical and organizational difficulties to be faced in bringing about this programatic combination at the federal level. Nevertheless, these difficulties should be squarely faced and overcome. S. 621 does not attempt to solve this problem.

I would now like to end this statement on a more positive note with respect to S. 621. I agree that the federal government will need to continue to have a very substantial direct role with respect to interstate water developments. I specifically agree with Section 106 on Special Regional Projects, and Section 107 on operation and maintenance of existing federal projects. The nations system of 25,000 miles of inland navigation must be maintained and rehabilitated, as necessary, by the federal government. The flood control problem of the Mississippi River could not possibly be handled except by the federal government; and, no doubt, other special regional projects will be found essential in the national interest. Whether such projects would eventually include large interstate, or even international, river basin transfer schemes, as rescue operations in the Southwest or for other purposes, remains to be seen. S. 621 would enable their study and authorization to be possible whenever the Congress so decides.

As you hear, my views are not basically anti-federal. What I am calling for is a new and careful sorting out and reassignment of federal, state and local functions to meet what I see as the water realities of the future. With respect to intrastate water matters, the current federal program relys too heavily on federal professional talent, federal financial resources and ultimate federal decision-making.

JOINT STATEMENT

By

SOUTH DAKOTA RURAL ELECTRIC ASSOCIATION, PIERRE, S.D.
RUSHMORE ELECTRIC POWER COOPERATIVE, INC., RAPID CITY, S.D.
EAST RIVER ELECTRIC POWER COOPERATIVE, INC., MADISON, S.D.

For The

SENATE WATER RESOURCES SUBCOMMITTEE
OF THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

Rapid City, South Dakota

August 14, 1981

Mr. Chairman, Members of the Committee:

This statement is jointly submitted by the South Dakota Rural Electric Association located in Pierre, South Dakota, Tom Fennell, Executive Manager; Rushmore Electric Power Cooperative, Inc. located in Rapid City, South Dakota, Harvey K. Malon, Manager; and East River Electric Power Cooperative, Inc. located in Madison, South Dakota, represented today by Jeffrey L. Nelson, Assistant to the General Manager.

Rushmore Electric Power Cooperative and East River Electric Power Cooperative are rural electric cooperatives that serve wholesale power to thirty-three member systems who in turn provide wholesale power to over 80,000 rural families in northeastern Wyoming, most of South Dakota, and a portion of western Minnesota. The South Dakota Rural Electric Association is the association of all rural electric cooperatives located in the state of South Dakota and is the association through which the cooperatives express a single voice on legislative issues.

The views submitted in this joint statement, therefore, represent those of the rural electric cooperative systems in South Dakota as well as those customers served by Rushmore Electric Power Cooperation in northeastern Wyoming and East River Electric Power Cooperative in western Minnesota. The policy statements are embodied in resolutions which are adopted annually by the members of each of our respective cooperative organizations.

The purpose of our testimony is to solicit the support of this Committee and assert our strong support for the development of the Gregory County Pumped Storage Unit. The Gregory County Pumped Storage Unit is a 1,180,000 kilowatt hydroelectric unit that would increase the existing power producing capacity of the Missouri River hydroelectric system by 58 percent. The site, located in Gregory County of South Dakota, has future expansion capability to provide up to 2.4-million additional kilowatts of capacity. The electric output of this project will be distributed in no less than a six-state region that has a demonstrated and growing requirement for electric power.

The project has been thoroughly studied by the Corps of Engineers and has withstood the exhaustive tests of technical evaluation which have yielded a clear-cut, positive benefit-cost ratio, a clean bill of health environmentally, and poses no safety problems. Studies by the Corps of Engineers were initiated on this project in 1969 and are now virtually complete.

This project has gained widespread public acceptance not only in the area where it is to be built, but also in South Dakota and the region in general. The South Dakota legislature adopted a resolution in 1976 urging the development of this project and the Missouri River Basin Commission afforded the project its top priority recommendation in its recent project priority report.

At a time when the United States continues to experience uncertainty in the future availability and cost of petroleum-based products, we believe the Gregory County Pumped Storage Unit offers a major opportunity. The Gregory Project, which will provide hydroelectric energy during peak use periods in this region, will displace over 6-million barrels of oil annually, according to Department of Energy calculations. The use of the Gregory Project as an integral part of the Missouri River mainstem system will improve the efficiency of that system and at the same time deliver a savings in oil displacement alone of $180-million annually, if a conservative estimate of $30 per barrel of oil is used.

The technology for the construction of a pumped storage project such as the Gregory Project is not new. By Federal development of the Gregory Project, the existing Joint Transmission System, which is a common transmission system jointly owned by the Federal government and the preference customers of this region, could be used to deliver the output of the Gregory Project. Thus, the transmission requirements for the Gregory Project would be significantly minimized by integrating this project into the existing system. We believe this would be accomplished through Federal construction.

The site for the Gregory Project is adjacent to Lake Francis Case, which was created through the construction of the Fort Randall Dam on the Missouri River. The successful construction and operation of the Gregory Project depends upon it being integrated with the existing facilities. The major operational, marketing and construction tasks required in the significant initial work already completed by the Corps of Engineers on this project, all logically lead to the conclusion that if the project is to be developed, and it should be, and if it is to be utilized for the maximum benefit, Federal development is not only prudent but absolutely necessary. The Corps has already invested significant environmental and other study effort to this project, all of which would have to be duplicated at a high cost of both time and money if Federal authorization is not made.

The rural electric cooperatives in this region, while fully supporting the immediate development of this project through the Federal authorization and appropriation process, neither expect nor support the development of the Gregory Project using Federal grant dollars. Rather, we support the development of this project with an obligation by the users of the power from the Gregory Project to repay the Federal investment which should be made. The existing pay-back requirements of the Pick-Sloan Missouri Basin Program which govern the reimbursable features of the existing mainstem dams have worked well in the past and we believe should be used as a pattern for the Gregory Project.

We are aware of proposals which have been made in Congress that would require cost sharing on the part of states as a requirement for future Federal water projects. We submit to this Committee, however, that such an approach for a project like Gregory is not only unreasonable but is unworkable. The output of this project will be marketed in at least a six-state region with the beneficiaries of the project being not state government, but rather those customers who are receiving power from the cooperatives, public power systems, municipalities, and investor-owned utilities that will receive power from this project. Like the existing Missouri River dams, we support the power being marketed with a preference to public entities and rural electric cooperatives. Significant quantities of the power and energy marketed from the existing mainstem dams which is in excess of the preference customers' needs is available to investor-owned utility companies. Therefore, virtually every electric user in this region benefits from the existing mainstem hydro system and we believe such would be the case for the Gregory County Project. As such, the requirement for state government to provide "up front" dollars in order to further the development of a project such as this would not only result in non-development of this project, but potentially raises serious questions in the event that one or more states would choose not to contribute their share which could then frustrate the efforts of all of the other states who may be interested in such development. Additionally, the administration of such a cost sharing program is clearly adding an unnecessary factor to a system that has proven itself effective and a wise investment for the Federal government. The amortization of the facilities on the Pick-Sloan Missouri Basin Program have gone forward on schedule and for that matter have yielded dollars well in advance of the original projections made for pay-back on that system.

Last, we are well aware of the critical water supply needs that exist in the area immediately adjacent to the location of the Gregory County Pumped Storage Project. We believe and support the use of water from the forebay of the Gregory County Project for providing desperately needed domestic and agricultural water in that region. Such multipurpose use of this project will be a major benefit to that local area and one that we fully support.

In summary, we ask this Committee to reverse the previous trend and attitude of the Congress towards the Gregory County Pumped Storage Unit. This project has been considered by the Congress as part of the Water Resources Acts that were in Congress in 1976 and again in 1978. In both cases, issues not related to the Gregory Project has caused those authorization bills to die at the end of both of the last two sessions of Congress. The frustrations that have been created by such inaction by Congress are enormous. Congress' inaction on this project demonstrates a callous disregard of the significant benefits offered to contribute to displacement of petroleum products.

We believe that given the opportunity, the present Administration will support the Gregory Project. In a statement presented on his behalf in South Dakota on October 3, 1980, by then candidate, now President Reagan, the following support for the Gregory Project was offered:

> "In South Dakota, for example, the Gregory County Pumped Storage Project demonstrates what could be done by an Administration committed to a policy of energy development rather than energy stagnation... ...the project would return $1.50 in benefits for every $1.00 in cost. This pumped storage project should be under construction right now, but it too has been hostage to the Administration's no-growth policies."

Accordingly, we request that this Committee take action to recommend the immediate authorization and funding for the Gregory County Pumped Storage Project. We challenge you to forward this project if need be in a single bill so that its authorization and funding can move forward instead of being continually frustrated by circumstances which have needlessly stopped its development.

* * * * * * * *

TESTIMONY BY
WEST RIVER CONSERVANCY SUB-DISTRICT
PHILIP, SOUTH DAKOTA
FOR THE
U. S. SENATE SUB-COMMITTEE ON WATER & NATURAL RESOURCES
AUGUST 14, 1981

Mr. Chairman and members of the Committee, my name is Jerry Rhodes and I am Manager of the West River Conservancy Sub-District with the office located in Philip, South Dakota. The West River Conservancy Sub-District consists of eleven counties in western South Dakota guided by nine elected Directors. The whole purpose of the Sub-District is a strong commitment to the continued responsible development of multi-purpose water resource projects in western South Dakota.

There are many farmers, ranchers, and municipalities who are faced with a serious shortage of good potable water. Many of the ranchers have been forced to haul potable water at a tremendous expense and burden. Many municipalities are faced with spending hundreds of thousands of dollars for new treatment facilities and/or deeper wells. This hardship is highly unnecessary because of the high quality and quantity water which flows out of South Dakota every day from the Missouri River unused by South Dakotans.

The Federal Government has a moral commitment to South Dakota for the thousands of acres of good land that has been permanently flooded in the upper Missouri Basin for the purpose of providing flood control to the states in the lower Missouri and Mississippi Basins. Many years have passed and we find the commitment to offset the tremendous burdens we have endured in order to benefit the nation as a whole largely ignored with no clearly stated Federal commitment to offset the losses.

The nation as a whole for several years now has been faced with the shortage of oil and must now turn to other sources to help offset our depleting oil resources. In western South Dakota, we have two major projects which could be a step towards this goal. They are the West River Aqueduct and the Gregory County Pumped Storage Unit. Both projects are multi-purpose projects which will produce revenue as a result of water and power sales.

The West River Aqueduct would be a major pipeline across central western South Dakota from the Oahe Reservoir to the Wyoming border. The Aqueduct would provide potable water for citizens of western South Dakota and water for industries in eastern Wyoming.

The Gregory County Pumped Storage Unit would provide electrical power for no less than a six state region. The Unit would also provide water for rural water systems, municipalities, irrigation projects, and possibly recreational use. The Gregory Unit is a 1,800,000 kilowatt hydroelectric unit that would increase the existing capacity of the Missouri River hydro-system by almost 60 percent. The site has future expansion capability to provide up to 2.4 million kilowatts of capacity. This could save the United States approximately 6 million barrels of oil a day.

In summary Mr. Chairman, I urge your support for the Gregory County Pumped Storage Unit and the West River Aqueduct, both of which have multi-purpose benefits along with payback requirements. It is time now that we start moving forward in water development not only in South Dakota but throughout the nation.

Testimony of Daniel R. Hale before the Water Resources Subcommittee of the Senate Environment and Public Works Committee on behalf of the American Mining Congress on August 14, 1981, in Rapid City, South Dakota.

Mr. Chairman, members of the Committee, distinguished panel members, and ladies and gentlemen. My name is Daniel R. Hale. I'm vice president and general counsel of Occidental Oil Shale, Inc. I am here today testifying on behalf of the American Mining Congress. The American Mining Congress is a trade organization representing large and small companies and individuals engaged in the natural resources extractive industry as well as suppliers of goods and services to the industry.

I have been asked to testify today concerning water availability for energy development. My remarks today will, for the most part be general, but given my experience and background, specific references will relate to the production of shale oil and to the Colorado River Basin. It is, however, appropriate to utilize these examples since synthetic fuels development has been viewed as a major water user and this basin is likely to include synthetic fuels production, hydroelectric development, conventional oil and gas production, and coal and uranium mining. It also has prime potential for solar energy which may require substantial amounts of water as a heat transport medium.

All studies to date, from the Final Environmental Statement for the Prototype Oil Shale Leasing Program completed in 1974, to the recently completed National Water Resources Council report prepared pursuant to Section 13a of the Non-nuclear Energy Research and Development Act, have indicated ample physical supplies of water are available in the Colorado River Basin for energy development and, in particular, for synthetic fuel development up to 3 million barrels/day without any adverse impact upon, or harmful competition with, existing agricultural and other water use. Prior testimony today indicates that the Missouri River Basin also has ample water supply even though there remain differences of opinion on development methods and projects. Hence, physical water supplies are available in order that energy independence goals can be reached without harmful impacts on other segments of the economy.

What those of us who are seeking to meet these national energy goals do face, however, are institutional barriers which may significantly impede the development of the available water supplies. It is, in my judgment, the imposition of these institutional barriers which often leads to pressure for inter-basin import and export of water. As an aside, water in significant amounts has been transported from the Colorado River Basin to the Missouri River Basin, principally for use by the city of Denver for almost a century.

Let me briefly describe some of these institutional barriers. The first is the unquantified federal reserved water rights and Indian reserved rights. We recognize that quantification of these rights, particularly the Indian rights, is a difficult political process. Nevertheless, investment in significant water projects to provide water for any purpose whether it be energy, agricultural, or domestic uses will be significantly impeded by the spector of these unquantified rights which could impair the continued use and operation of the project. National water policy should clearly provide that no more implied reservatives will be created or recognized.

The second institutional barrier is the Endangered Species Act which is, to my knowledge, the only Act which can be applied in a retroactive as well as prospective manner to entirely prohibit the operation of any project which relies on any federal license, permit or other approval, and which contains no provision for predicating such harsh results upon any rule of reason. Blue ribbon panels with authority to overrule such results are too subject to political pressures and mercurial composition to provide any real solution. Since every project, even those located entirely upon fee land, invariably needs some sort of Federal Government license, permit or other approval, the potential exists for not merely blocking energy development projects, but indeed for shutting down existing reclamation and flood control projects upon the determination that a specie has become endangered or upon the discovery of a new endangered specie. When the specie involved is a fish located in a major river system, the most difficult situation of all arises, since the entire system becomes critical habitat. The Squaw Fish and the Humpback Chub impact every single water diversion project in the entire Colorado River Basin and water is a necessary element of all human activity in the Basin. Surely Congress did not intend that these ecologically insignificant but well publicized specie of minnows be able to stop all development in a seven state area of the United States. Although we are mindful that Judge Arraj has recently determined that these particular fish were improperly placed upon the endangered list by the Secretary of the Interior, nevertheless the Endangered Species Act constitutes perhaps the most significant impediment to water resource development in an energy rich segment of the country.

Another significant barrier is that of the so-called Section 404 or Dredge and Fill Permits issued by the U. S. Army Corps of Engineers pursuant to the Clean Water Act. These 404 permits were intended to protect water quality from dredge and fill activities in navigable streams and wetlands. Inasmuch as industrial water pollution may clearly be controlled in waters of the United States pursuant to NPDES discharge permits, one would hope that Section 404 permits be limited to those waters where navigability is in fact a real consideration rather than utilizing definitions of navigability which push the commerce clause to its very breaking point.

A fourth institutional barrier is wetlands protection. Wetlands protection is, of course, a desirable goal for providing necessary wildlife habitat and breeding areas, but, again, definitional problems can create some vexations problems for energy developers. In the West, for instance, most wetlands other than those along the stream alluvium are the result of activities of man, principally agricultural return flows, ditch seepage and portions of shallow reservoirs. Thus, land usage and water rights may be defacto "zoned" into particular uses where the owner of the water right and the owner of the property involved are prohibited from utilizing either their water rights or their land for higher and better beneficial uses.

As my final example of an institutional barrier to the development of water for energy purposes, I would like to raise the lack of recognition in state created property rights. Whether it be the Endangered Species Act, Section 404 Permits, Preservation of Wetlands or other federal controls, all have the effect of a "taking" of a vested and recognized property right without compensation. If Congress feels that the benefits of the results of these acts are of significant value, surely it should provide compensation for those who suffer direct loss by congressional and agency action.

No rights are more important to westerners than their water rights and it seems most incredible that these rights which receive great protection under state law can be wiped out without remedy by federal agency action. Any national water policy must recognize these state rights and be worded strongly enough to assure that other federal laws do not result in a "taking" of these rights without compensation. Legal technicalities distinguishing a physical taking from "merely" prohibiting use should not be recognized when the property right itself is usufructuary in nature.

One final matter might also be considered by this committee which could significantly assist our country in meeting its energy independence goals. Water projects in energy development areas should be reevaluated for possible federal support upon the addition of elements to the project which provide water for energy development where such incremental elements will be supported by energy producers.

In summation, I would like to point out that all studies indicate that for the foreseeable future, physical water supplies are available for energy development without disruption of existing economic and social activity, but that well meaning but occasionally poorly conceived institutional barriers are the major impediment to water development for energy resources.

Thank you very much for your time, consideration and the opportunity to present these views to you.

Sunday, August 9, 1981 The Daily Sentinel, Grand Junction, Colorado—

Judicious ruling

At long last, someone in a position of authority has injected a little bit of reason into the fractious debate over the notorious Colorado squawfish.

Last week U.S. District Judge Alfred Arraj ruled that endangered species designations for the Colorado squawfish and humpback chub are invalid.

As a practical matter, the decision prevents the Interior Department from applying highly restrictive rules and regulations to a major portion of the Colorado River system where the Colorado squawfish and humpback chub are presumed to live.

Arraj's decision was extremely limited in scope. He ruled that the endangered species designations were invalid because the Interior Department failed to give proper notice to allow full public participation in discussing the fate of the fish. By failing to meet public notice and participation requirements, Arraj said the Interior Department violated the Administrative Procedure acts of 1966 and 1973.

In overturning the endangered species designations on a technicality, Arraj removed a major obstacle to the construction of the Juniper-Cross Mountain Project near Craig and the Dolores and Animas-La Plata projects in southwestern Colorado.

Moreover, Arraj's decision is significant for more than what it means to the future of three Western Slope water projects. Arraj very well may have given a new sense of validity to a law which was intended to serve a very important public purpose — protecting America's endangered species like the grizzly bear, bald eagle, whooping crane and birds and animals like them.

Because of the manner in which environmental extremists could manipulate the Endangered Species Act to frustrate any form of development — witness the controversies surrounding the tiny snail darter and Colorado squawfish — public support for protecting endangered species probably has diminished.

Arraj's ruling, if anything, should make manipulating the Endangered Species Act for anti-development purposes a lot more difficult in the future.

Industry Could Tap Into Shale Beds' Water

BY JACK COX
Denver Post Staff Writer

GUNNISON — The oil shale industry in western Colorado may be able to get much of the water it needs from underground sources within the shale beds themselves, a hydrologist with the U.S. Geological Survey reported this week.

Glen Miller, a groundwater expert in the agency's oil shale office in Grand Junction, said it has been estimated that aquifers in the Piceance Basin contain from 2½ million to 25 million acre-feet of water.

"The oil shale (formation) is, in fact, the aquifer in a lot of cases," he noted.

Miller indicated that 2.5 million acre-feet, the lowest estimate of groundwater reserves, would provide roughly a 50-year supply for a medium-sized oil shale industry producing 100,000 barrels of crude oil per day.

"Developing the groundwater would probably cost about one-tenth as much as developing water from the Colorado and the White rivers," he added.

Miller discussed the possible use of groundwater by the oil shale industry at a groundwater conference co-sponsored by Western State College and the Rural Communities Institute. The three-day meeting ended Wednesday.

JOHN MUSICK, a water lawyer from Boulder, stressed that several problems would need to be solved before the underground sources could be tapped. Among them:

—Depletion of the aquifers eventually would affect Piceance Creek, which gets 80 percent of its flow from groundwater. The users would be required to augment the streamflow with water from other sources.

—The ownership of the groundwater is unclear. The federal government owns most of the shale beds, and may hold reserve rights to the groundwater as well, under provisions of the Desert Lands Act of 1877. Congress might have to pass a law to permit private industry to use the water.

—Even if the federal government doesn't own the groundwater, other deep-aquifer users might have senior rights to it.

—Finally, and "potentially the greatest problem," the groundwater might be contaminated with minerals from the shale. This could mean it would have to be either cleaned up or kept out of surface waters, since water quality in the Colorado River is subject to agreements between the United States and Mexico.

Musick said it might be easier to use groundwater to augment surface supplies in dry years than to use it as a primary source for the industry.

Miller said the operations on federal lease tracts C-a and C-b, two 5,000-acre sites in Rio Blanco County, suggest that most of the underground oil shale mines will be "wet."

On C-a, where the bottom of the mine lies 800 feet below the surface, water is being pumped out at a rate of 2,000 gallons a minute, he said. On C-b, which is 1,500 feet deep and still in the shaft-sinking phase, the flow is half to two-thirds that level.

Miller said the operators of C-b have been getting rid of some of the excess water by irrigating 100 to 150 acres of land in an experiment to see how its high salt content will affect plants.

The operators of C-a, he said, have been injecting all the water back into the ground, through wells drilled outside the borders of the tract.

Such storage, he suggested, might provide all the water the processing plant would need in its first few years of operation. At the very least, he said, it might postpone the time when the facility would need to make full use of its surface-water supplies.

Miller said the industry will consume from one to four barrels of water for each barrel of oil produced — more for open-pit operations, less for in situ, or underground, projects.

HE SAID the groundwater is found in both the Green River Formation, in which the shale occurs, and the Uintah Formation, the layer of rock above it. In the middle of the Piceance Basin, the Uintah is 800 to 1,000 feet thick, the Green River 1,000 to 2,000 feet thick.

Miller also observed that there may be as much water in storage below those formations as there is within them.

Geologists don't know exactly how much water underlies the basin, Miller explained, because the formations are not homogeneous, or the same everywhere.

The Geological Survey office in Denver said Miller's report would be published in September.

SIERRA CLUB
NORTHERN PLAINS
REGIONAL CONSERVATION COMMITTEE

STATEMENT OF TED HOFFMAN
CHADRON, NEBRASKA

BEFORE THE SENATE SUBCOMMITTEE
ON WATER RESOURCES

I am Ted Hoffman representing the National Sierra Club. I am Sierra Club Regional Vice-President for the Northern Plains States and Chairman of the Water Planning and Management Campaign Steering Committee.

My remarks will be directed toward the need for 100% cost recovery of water projects and water conservation.

We are not using nor developing our nation's water resources wisely, and one single factor is most to blame; the Federal government's deeply rooted practice of providing highly subsidized water resources that really benefit a small segment of the population. These projects do not stand the free market test, in which lending institutions judge the merits, weigh the risks and reach a prudent, cautious business judgement. In the case of water projects the lending institution is the U S Treasury. Interest rates are cheap; those who benefit almost never have to pay back the loan in full, and some never pay anything.

We have been talking about water reform for a long time. In 1950 President Truman's Water Resources Supply Commission concluded that

> The blunt truth is that instead of getting coordinated plans, we stumble along amid a multiplicity of separate plans by the federal, state and local agencies that finally are thrown together in unsatisfactory planning. Again and again, projects are undertaken as if they were ends in themselves, instead of parts of a program designed to meet the needs of our land and of our people.

President Eisenhower's Hoover Commission, five years later, reported that

> The federal governments's organization for carrying out its policies on water resources and power development lacks coördination, fosters competition among its agencies, causes controversy, confusion, duplication and waste and encourages rather than curbs bureaucratic ambitions.

And, more recently, the Carter Administration noted in June 1978 that

> Twenty five separate federal agencies spend more than 10 billion dollars per year on water resources projects and related programs. These programs are often planned without a uniform standard basis for estimating benefits and costs.

In 1973, a National Water Commission study made some simple-sounding policy recommendations, echoing the same conclusions from previous studies. These are the fundamental reforms which, though so often written and spoken about, still remain to be carried out:

> Those benefitted by water projects should pay for them -- both construction and operating costs --- rather than the public that is taxed for subsidies.
>
> The backlog of authorized projects should be eliminated and we should use more realistic benefit-cost ratios in determining which projects should be built.
>
> States should have a greater responsibility in planning, guiding, building and paying for water projects.

A recent General Accounting Office review of six federal irrigation projects found that the water produced will cost the government between $54 and $130 an acre-foot each year. But the crops grown by the farmers will not yield enough revenue to cover the costs. However, the farmers will continue to buy the federal water, because they are charged a price below government cost. As long as Congress is willing to provide such subsidies, economically unsound and environmentally destructive projects will continue to be promoted.

According to the U S Department of Agriculture, the nation is losing three million acres a year, including one million acres of prime farm land, to urban sprawl, highways, parking lots and water impoundments. If we would concentrate on reducing this loss instead of promoting federal water projects that often irrigate substandard land, the taxpayers would get a break, and valuable natural resources would be preserved.

Energy conservation of any significance did not take place until energy costs rose to near its true market value. We believe there will be no significant water conservation until the costs to the user reflects the true cost of production.

In short, the Sierra Club believes that water resource development should be governed by the competitive restraints of the free market, as much as possible. To that end, we urge as a most basic reform that the full costs of building and operating water development (including costs to mitigate environmental damage) be recovered from those who benefit, through an equitable user fee system.

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PRESENTATION BY
DENNIS W. POTTER
to the
U.S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON WATER RESOURCES
Rapid City, South Dakota
August 14, 1981

Thank you, Senator Abdnor, for the opportunity to be present at this Subcommittee hearing. My comments will be brief.

On behalf of the District Commission, I would like to state that we support your Senate bill with regard to the Gregory Pumped Storage project and your bill with regard to Energy Transmission Systems, Inc., Coal Slurry Pipeline.

There is no doubt that development of energy resources in the western United States will require the utilization of significant volumes of water. The concept set forth by Exxon Corporation to transport 1.7 million acre-feet of water from the Missouri River to northwestern Colorado is a clear indication of the need for water in that part of the United States.

The reason Exxon has focused on the Missouri River, in my judgement, is quite simple. The water stored behind the mainstem dams of the Missouri River is the only place in the continental United States where large volumes of water are readily available for use. The Colorado River system is nearly overappropriated or is significantly overappropriated, depending upon the set of figures under disucssion. The Columbia River system is protected by law against the export of water outside of that River Basin, thus only the Missouri River remains available as a source of water for energy development.

The State of South Dakota has yet to make full use of the Missouri River water available to it. Should the federal government or private corporations desire to export Missouri River water to other states, it is important for South Dakotans to receive trade-off benefits as part of that export action. If we do not, then I fear South Dakota will have lost a great opportunity to fully develop its water resources. I would hope that you and the rest of the Subcommittee members will be constantly on guard to protect the rights and the needs of this State.

I would be happy to answer any questions you may have.

WATER RESOURCES SUBCOMMITTEE HEARINGS

RAPID CITY, SOUTH DAKOTA
August 14, 1981

TESTIMONY
presented by

LEONARD F. SWANSON

Congress passed a law in 1968 that made flood insurance available to any community that made application. Rapid City, within two years, met this requirement thereby making flood insurance available to all its citizens. Two years later, on June 9, 1972, the Rapid City area experienced a flood of disasterous proportions. These are statements of fact, what is their relationship to one another and its significance?

Nationally there was recognition that ever increasing expenditure of funds for structural flood control measures were followed by floods of greater proportions and that a different approach must be found to reverse this trend. The governing body of Rapid City recognized the potential of this program for its citizens and acted positively. The flood was an actuality, the possibility of which had caused the previous actions. There had been enough time differential for the acquisition of flood insurance by those residing in flood hazard areas; in fact, few did.

Why had property owners not accepted the opportunity to protect themselves against a monetary loss from flooding as they had from fire, for example? Many may not have been aware of the availability of flood insurance. The insurance salesmen, themselves, weren't too knowledgeable of the program. Also, flood insurance had not become mandatory to secure new home financing. Finally, Pactola Reservoir may have been responsible for creating a false sense of security. All these reasons, plus others, contributed to a lack of positive public response to the availability of flood insurance.

What the Rapid City flood of 1972 exposed is that flood plain management must proceed as rapidly as possible. Proper flood plain management will stop the continuing encroachment into the flood plains and over a period of time reduce the existing encroachment. The optimum would be as close to zero encroachment as possible.

Surely, everyone will agree that the Rapid City flood was caused by ~~intense~~ rainfall (up to 15 inches in some locations), it should be just as evident that the disaster was caused by actions and/or inaction of Rapid City citizens. This happened because some thought we were protected from flooding by Pactola Reservoir but moreover because of our profound belief that we have a right to do with our lives as we see fit. Both are fallacies, if not complete, then partially. Pactola, as we so regretfully learned, could not protect us from nature's quirks that happened between Pactola and Rapid City. The number of floods will be reduced, but not necessarily the size. Our rights extend only so far as they do not infringe on the rights of others.

Let me quickly point out that I'm not anti-reservoir construction or any structural measure of flood control, but flood plain management must also be an integral part of the plan. The designers of Pactola Reservoir knew its limitations and undoubtedly said so.

To those skeptics that say the 1972 flood was a fluke and won't happen again, I point out that the one percent flood for Rapid Creek has a calculated flow of 15,000 cubic feet per second (c.f.s.). This was exceeded in the 1972 flood by 35,000 c.f.s. and closely approximated by the 1907 flood with a 13,000 c.f.s. flow. It is also interesting to note, that, although one is almost four times as large in quantity, the area covered was substantially the same thereby relating the true flood plain equitably to the calculated flood plain.

There is little doubt that the enactment of flood plain management will cause financial discrepancies, but the program is structured in a way that most of these problems will be kept to a minimum. Just imagine how much less costly it would have been in Rapid City to provide flood plain management before the flood and not after: 238 lives!

Flood plain management is to make best use of the land involved and this does not mean that it can be only used for farming or ranching. Rapid City has made its flood plain into recreational and park use as well as some gardening. There are, however, other uses possible with correct zoning and with restrictions of residential use, through a Planned Residential Development or a high density residential area that can make use of the necessary open space.

It's easy to see why the early settlers located close to a water supply but why we insist on violating natures waterway is difficult to understand. How many people that have no qualms about building their home in a flood hazard area with the expectation of sleeping there every night would even contemplate resting on a railroad track -- both are visually defined!

City of New Underwood
Box 278
New Underwood, SD 57761
605 - 754-6777

August 14, 1981

Senate Sub-Committee

Re: Floodway

We would like to make it perfectly clear that we are not trying to attack the Federal government since they have been an invaluable aid to our City. However we think it is only fair to point out mistakes when they are made.

The City of New Underwood adopted our Flood Ordinance May 15, 1980 after a great deal of information was provided by the Federal Emergency Management Agency at public hearings. After the smoke cleared and the Ordinance was adopted we found the only thing we gained by adopting Flood Ordinance 80-1 was condemning approximately 20% of the property through the center of our City.

The economic impact of this Flood way Ordinance is devastating to a community of our size. In 1965 the Interstate was completed and it was like cutting one wrist. In 1980 the Flood Ordinance was adopted and now our other wrist has been cut. At this juncture we are placed with a very slow and agonizing death. The property owners in the community want their taxable valuations reduced to meet the value of the land. Since the property in the floodway cannot be developed it has no value. Since a major portion of the land cannot be improved we are unable to increase our tax base. With the rising costs of operating a municipality the only option local government has is to increase the mill levy. When approximately 40-45% of our population is on fixed or low income this cannot be considered a responsible act by a governing body.

The City of New Underwood's (flood problem?) is not of the magnitude or destructive nature that most cities are forced to deal with i.e. Rapid City 1972. The problem we have locally is a situation where water runs down to the creek south of the City and backs up slowly into the City. We have never in the history of this community experienced a sudden or high velocity water flow. Our problems are caused in part by a 3½ square mile area of run off north of the City. Another part of the problem is the railroad trestle south and east of the City. There has never been a record of any major damage or life loss due to a flooding problem in the City of New Underwood. We have devised a method which we believe will solve our flood problem. This would be to install an earthen holding dam north of the corporate limits and south of the interstate. In the past we have considered installing flap gates on the drain pipes that run under the interstate to hold back any sudden flow of water. Quite obviously this recommendation was rejected at both State and Federal levels. At present we are working with the Soil and Conservation Department to determine the feasibility of this holding dam.

In closing I would like this committee to know that I have touched just briefly on some of the more serious problems related to the Flood Ordinance. There are a lot of items that need your consideration when you evaluate the flood management system. One is the Federal requirement that all Governmental agencies adopt a policy consistant with that of the Federal Emergency Management Agency. One of the other things to be considered is how small municipalities can economicly defend their Floodway Ordinance and the corresponding actions to that Ordiance in a court of law. I would like this panel to know that there are some major changes needed in this program. I will make myself available to this panel or any other agency that desires my input or experience having worked with this program.

Thank you,

I. L. Oliff

I.L. Oliff
Chairman

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TELEPHONE (605) 642-2757

August 13, 1981

Senator James Abdnor
4239 Dirksen
Senate Office Building
Washington, D.C. 20510

Dear Senator Abdnor:

I am writing this letter on behalf of several clients represented by my law offices who own property in the floodway and flood plain designated by the Federal Emergency Management Agency in the City of Spearfish, Lawrence County, South Dakota.

The City of Spearfish has been advised by FEMA that unless the City of Spearfish passes a Flood Damage Prevention Ordinance by September 2, 1981, the city will be dropped from the National Flood Insurance Program, which would result in the loss of any commercial funding for any construction within the proposed flood plain, possible loss of Federal grant money for the construction of the new EPA mandated sewage plant for the City of Spearfish and loss of any flood disaster funding which may be available to the city in the event of flood.

As with many such programs, the original concept is admirable, however, it becomes impossible in application. The City of Spearfish is being forced to approve an ordinance based upon the minimum standards of FEMA which are vague, restrictive, impossible and expensive to administer and to adopt a flood control map which is, by FEMA's own admission, inaccurate and virtually impossible to change or amend under FEMA's regulations.

The model Flood Damage Prevention Ordinance presented by FEMA to the city for passage was, to my knowledge, not available to the city until approximately thirty days ago with the instructions that it must be passed by September 2, 1981. The stated purposes of the ordinance are, among others, to minimize expenditure of public money for costly flood control projects, minimize the need for rescue and relief efforts, minimize prolonged business interruptions, and maintain a stable tax base providing for a second use of areas of flood hazard. However, there is and has been no studies, information gathered or any other data base to determine whether the map and ordinance presented to the city will, in fact, minimize any expenditures nor is there an estimate as to its cost. There are no comparisons of the immediate and long term cost to determine the economic impact upon the City of Spearfish or individual property owners for the enactment of the proposed ordinance and map as opposed to a dike or deepening the creek channel to minimize the flood plain and floodway and thus avoid rendering valuable property useless forever.

The ordinance prohibits any man made change within the flood plain which may increase the flood density or flood course. There is no definition of density within the ordinance. Conceivably, the planting of a tree, shrub or flowers would be prohibited. In the event a homeowner or business establishment within the flood plain or floodway wished to add a patio or small storage building, they are required "to submit plans in duplicate and drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

> (1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
>
> (2) Elevation in relation to mean sea level to which any structure has been floodproofed;
>
> (3) Certification by a resgistered professional engineer or architect that the floodproofing methods for any non-residential structure meet the floodproofing criteria in Section 5.2-2; and
>
> (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development."

Not only are these requirements burdensome and probably impossible to comply with since there is no definition of watercourse within the ordinance, but the engineering costs would probably exceed the value of any proposed development.

In the event of damage to any structure within the flood plain and FEMA determines the damage to be a 100% loss based upon the market value of the structure prior to loss, a million dollar a year business operating out of a $5,000.00 structure is totally destroyed which, in the instance of Spearfish, would include Taco Johns, Dairy Queen and the Pizza Hut, as examples.

As stated before, the flood insurance rate map as presented by FEMA for passage is by FEMA's own admission inaccurate. It appears that it was prepared generally from a 1961 contour map with contour intervals to forty feet. This is a totally unacceptable base when the difference of a foot or a few inches can save or destroy a home or business. The designations of floodway or flood plain on the map have totally ignored the areas of high water in previous flooding by inserting areas which have never been flooded and omitted others which have traditionally gotten wet. The city has been advised that they must, however, approve this map even though admittedly inaccurate as FEMA does not have funds to restudy the area even though the map is inaccurate. The map is virtually impossible to amend in the future without a restudy by FEMA and it would seem that this would be unlikely since they do not have resources to even draw the original map correctly.

All of this has placed the City of Spearfish and the affected landowners in an impossible situation. If the city passes the proposed ordinance for the purpose of protecting the grant money for the construction of the new sewage plant mandated by EPA, and make flood insurance available for those who wish it, they would do so knowing the probable invalidity of the ordinance and the gross inaccuracy of the proposed map and deprive the landowners the beneficial use of hundreds of thousands of dollars of valuable property and subject the city and possibly the indivdual members of the City Council to liability.

Consequently, on behalf of the people whom I represent and the City of Spearfish, we would request that the city be granted an extension of time in which to comply with the proposed ordinance and attached map until such time that the costs and economic benefits and losses and possible other control measures have been studied in order that an intelligent, fact-based judgment can be made and until such time as an accurate and realistic flood map can be prepared and a reasonable, administratively possible Flood Damage Prevention Ordinance can be prepared.

Very truly yours,

GARY R. RICHARDS

GRR:sp

ETSI Pipeline Project
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ETSI

STATEMENT BY THE ETSI PIPELINE PROJECT FOR INCLUSION IN THE RECORD OF THE SUBCOMMITTEE ON WATER RESOURCES OF THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS HEARING AUGUST 14, 1981, IN RAPID CITY, SOUTH DAKOTA

Thank you for inviting the ETSI Pipeline Project to take part in the Subcommittee on Water Resources of the Senate Committee on Environment and Public Works hearings on Energy and Water Needs in the West. My name is Fred Eiserman and I am manager of Environmental Activities for the ETSI Pipeline Project.

We welcome this opportunity to review the ETSI Pipeline Project with you. As members of the U. S. Senate, you, perhaps more than anyone else, are aware of the nation's need for reliable, economical and environmentally sound coal transportation. My purpose today is to outline for you how the ETSI Pipeline Project encourages coal development and conversion activities and western water development planning.

The ETSI Pipeline Project was on the drawing boards and its water rights secured in 1974 -- the year in which the Arab oil embargo showed the U. S. that it was strategically vulnerable in its dependence on foreign energy supplies to fuel its industrial and agricultural base.

That embargo also signaled the end of low cost energy for the U. S. Where once we had concentrated on how to distribute an ever expanding output of goods and services, we were now faced with the prospect of economic and productivity declines that demand development of alternate energy resources.

The call went out for a nationwide effort both to become energy independent and to revitalize American industry. The federal government has said, and we all know, it will take teamwork to maintain the American standard of living. That team must include all sectors of our society -- the federal government, state government, business, labor and special interest groups.

ETSI is proud to be part of this team. The ETSI Pipeline Project is a joint venture of five companies committed to design, construct and operate a pipeline system that will set new standards for safety, efficiency, public benefit, and environmental acceptability. Over the next 50 years this pipeline will move almost 2 billion tons of Wyoming coal to industrial and population growth centers in the Midsouth. The joint venture companies are Atlantic Richfield, Bechtel, Kansas-Nebraska Natural Gas, Lehman Brothers Kuhn Loeb, and Texas Eastern.

The ETSI Pipeline Project responds to America's need to develop new sources of domestic fuels -- especially the extensive deposits of high-grade, low sulfur coal in the sparsely populated Great Plains States -- and to get those fuels to the nation's growth centers.

The ETSI Pipeline Project responds to the Midsouth's need for not only a reliable but also a stable priced energy supply in these inflationary times. Savings in the range of $20 to $30 billion would be realized over a 30-year period.

The ETSI Pipeline Project responds to Wyoming's interests too. While Wyoming's biggest economic provider is its mining industry, the "Frontier State" does not want further industrialization and population growth. ETSI offers Wyoming an alternative: a means to export its coal without pollution and with minimal impacts on land use, wildlife and scenery.

In addition to its contributions to the energy sector, ETSI does something more. It advances U. S. technological innovation. Our industrial strength and our quality of life grew from this nation's outstanding capability to convert scientific concepts and just plain good ideas into commercial products and processes. The ETSI Pipeline Project is very much a part of that tradition. It is ironic, however, that more slurry pipelines have been built abroad than in this country.

Not long ago the U. S. stood on the threshold of expanding its use of a new energy source: oil. And, a key problem then as today was transportation and distribtuion. The answer was "pipelines." The first oil pipelines were established back in the late 1800's with a small system in the northeast. They did their job well. By 1932 the crude oil pipeline network had expanded to include the Midwest, upper Great Plains, Rocky Mountains, Midsouth and Southwest. Today, there exist 200,000 miles of oil pipelines in the U. S. as well as 200,000 miles of natural gas pipelines.

Now, as we turn to domestic coal reserves to replace foreign oil, we face once more the issue of how to transport an important fuel in large volumes over long distances. Because of the research and development done by ETSI and its forerunners to expand pipeline technology to the transportation of solids, the answer again is "pipelines."

ETSI will be the second operating coal slurry pipeline in the U. S. The first is the 273-mile Black Mesa line, which since 1970 has carried approximately 50 million tons of coal from the Black Mesa mine in northeastern Arizona to the Mohave power plant in southern Nevada with 99 percent operational availability -- a record of reliability no other transportation method can match.

Together the Black Mesa Pipeline and the larger 1400-mile ETSI system are pioneering a new industry to supplement railway transport of coal. And, like the oil pipelines before them, the coal pipelines will do the job more efficiently and economically than any other form of transportation.

Why is this? The basic economic advantage coal slurry pipelines have over railroads is that they are much more inflation resistant. With a fixed capital investment and relatively small labor and energy costs, pipelines face modest increases in operating costs. The ETSI Pipeline will have only one-third of the power, labor, and supplies costs that a railroad has.

In addition to inflation, the recently passed Staggers Act can be expected to stimulate rail rate increases. The Staggers Act establishes a zone of rate making flexibility which greatly increases the freedom of the railroads to raise their rates. Currently the railroads are lobbying in Washington for an even more liberal price ceiling on the zone of rate making. And, it is reasonable to expect that in the absence of competition, the railroads will set their rates at that ceiling.

When the railroads argue that coal slurry pipelines will drive them out of business, they aren't talking about losing their cargoes, they're talking about losing their monopoly. The fact of the matter is ETSI will be hauling a small percentage of the increased coal production in Wyoming. The railroads will continue to haul what they haul now plus the remainder of the increased production.

The ETSI Pipeline will only serve to increase the nation's capacity to move coal from Wyoming to the Midsouth. This will stimulate mining operations and employment and will ultimately result in making more coal available for shipping by both pipeline and rail. And isn't that part of what free enterprise and a competitive market place are all about -- increased output and lower prices?

To summarize, we at ETSI are battling to help create as quickly as possible a U.S. domestic energy fuel base, to inject free enterprise in the nation's energy transportation industry, and to support U.S. technological capability. That's the war we're in.

Yet conflict mounts on another front: over water. We feel this should not be an adversary situation. We believe ETSI offers resources that aren't available elsewhere to help ensure that western water resources are developed with foresight, prudence and equity. Water is a problem we want to solve not fight about. Let me explain ETSI's water requirements and what ETSI is prepared to do to safeguard western water far beyond the amount ETSI will use.

ETSI will require 15,000 acre-feet of water annually to move 30 million tons of coal per year. Over the life of this project we have explored two major sources of water supply:

(1) The Madison Formation, a deep artesian aquifer underlying some 180,000 square miles of the central western States and having a recharge rate of 150,000 to 400,000 acre feet per year as discussed in ETSI's Final Environmental Impact Statement; and

(2) The Oahe Reservoir on the Missouri River in South Dakota.

Let's discuss the Madison first. We all know that the Madison Formation is capable of yielding large quantities of water for energy, industry and municipalities. In a recent publication of the U.S. Geological Society titled "Synthetic Fuel Development and Earth Science Considerations" it is noted that it might be desirable to obtain ground water from the Madison for energy-related purposes because economic considerations make this source of water too expensive to develop for irrigation. ETSI volunteered to use Madison water for this very reason.

In January 1974 ETSI presented to the Wyoming Legislature its request to develop limited amounts of underground water for export in a coal slurry pipeline. A bill was approved by the legislature and signed by the governor as Enrolled Act No. 10. Enrolled Act No. 10 approved the ETSI proposal to use 20,000 acre-feet of water annually subject to approval of the State Engineer. The State Engineer subsequently issued ETSI 40 well permits.

In the course of this legislative history, a number of documents were produced that are rather unique in the development of an underground aquifer. In fact, as far as I know, there is no place in the intermountain region where there is a more stringent requirement of mitigation and monitoring imposed on industry.

The following documents require of ETSI affirmative action on both monitoring and safeguarding existing water users:

*Wyoming State Engineer's permits

*Enrolled Act No. 10 of the Wyoming State Senate

*Third Party Beneficiary Agreement with the Office of the Wyoming State Engineer

*Mitigation requirements noted in the Bureau of Land Management's Environmental Impact Statement.

If existing water users are affected by the project, ETSI is legally bound to do the following:

*Deepen existing wells or drill new wells and pay the incremental pumping costs

*Provide an alternative source of supply of equal quantity and quality water

*Terminate ETSI's pumping if remedial measures are unsatisfactory

*Develop and maintain a grid of monitoring wells and stream gauging stations.

I am sure that there is no one here who does not believe the Madison

Formation will be developed. However, scientific information must be obtained if this massive water resource is to be developed and managed with foresight. And, this is why the ETSI Project is extremely important and beneficial to the residents of Wyoming and South Dakota.

ETSI will be required at its own expense to lay out a grid of monitoring and observation wells that will extend from Edgemont, South Dakota, to the northern part of Crook County. There will be no less than 8 and possibly 11 of these wells. In addition, ETSI has agreed to maintain 6 stream gauging stations extending from Cascades Springs Creek near Hot Springs, South Dakota, north along the Wyoming-South Dakota border to the Belle Fouche River west of the South Dakota state line.

The data that will be obtained -- and this kind of data is desperately needed -- will be public information. I cannot over emphasize how important this is. The Bureau of Land Management's Well Field Hydrology Report produced in conjunction with its Environmental Impact Study of the ETSI Project describes the historic use of the Madison aquifer system, noting that 130 Madison wells are known to have been drilled and developed in the eastern Powder River Basin and Black Hills area. It goes on to say, significant amounts of Madison ground water may also be produced in Pennington County, South Dakota, where more than 40 Madison wells exist. But, production data are not available from these wells -- a total of 170 wells and no one knows what the Madison is doing.

Yet the pumping -- unmonitored and unregulated -- goes on. The West cannot continue indefinitely to exploit the Madison in the absence of extensive monitoring programs. Without the ETSI Project, legislatures at both state and federal levels will have the responsibility of providing millions of taxpayer dollars to establish the same type of monitoring well systems that ETSI will provide free of charge. This information, plus safeguards that this project offers to other water users makes the ETSI project a catalyst for a well organized water management development program, not only for underground water resources, but with the potential for the development of surface water resources.

ETSI has acted in good faith to negotiate a water right that includes benefits to water users of the Madison Formation for generations to come. ETSI is committed to striking an equitable partnership between our project and the states affected by our operations. In the case of the Madison Formation we were able to offer and we will carry out a water management program that will yield benefits to the Madison aquifer states in terms of new technology and scientific data that may ultimately become more valuable than the jobs, tax base and savings in coal transportation costs more directly associated with this project.

Moreover, ETSI is confidant that the monitoring program described above will not only fill in vital gaps in the current knowledge and literature about the Madison, it will demonstrate ETSI's impact on the Madison aquifer to be significantly less than has been estimated.

To explain this point, data from the Final Environmental Impact Statement were used to construct the five figures submitted with this statement. Figures 1-4 show the estimated reduction in water pressure for the Madison aquifer and overlying aquifers at each of four locations. This reduction is expressed in feet of potentiometric head and can be visualized as the height to which the water would rise if it were unconfined. No reduction in the aquifer will actually occur since the predicted potentiometric surface is above the top of the aquifer. All projected water uses are included in this analysis.

The Time-Drawdown Plot (Figure 5) showing the remaining potentiometric head with pumping from the Niobrara County well field also shows only a small effect on the available water pressure and no effect on the Madison aquifer's water level for the three locations shown. Figure 5 also demonstrates that once pumping has ceased water well levels would recover rapidly during the first few years and would continue to rise gradually thereafter.

Collectively, then, these figures show that:

*There is no effect on the aquifers

*The effect on water pressure within the aquifers decreases with distance from the wells

When interpreting these figures it is important to understand that a "worst case" analysis was performed and conservative values were used where actual data were unknown. As I have said, the ETSI monitoring program will fill in many of the important gaps in the data and will show ETSI's impact on the Madison aquifer and the shallow overlying aquifers to be significantly less than estimated.

Let's now review ETSI's relations with the State of South Dakota in exploring use of the Oahe for the Pipeline Project. In 1976-77 a public information program was undertaken in cooperation with these South Dakota entities:

*Department of Natural Resources Development

*Bureau of Reclamation, Huron Office

*Black Hills Conservancy Subdistrict

*West River Conservancy Subdistrict

The objective was a state-granted right to ETSI that would provide a water right for 20,000 of the 18,500,000 acre-feet a year that flow out of the Oahe Reservoir. The legislature passed the bill. The governor vetoed it. The House overrode the veto. The Senate failed to override by one vote. Thus, the measure failed. In the meantime ETSI continued to develop the Niobrara well field in accordance with Wyoming law.

When Governor Janklow took office, ETSI reconfirmed its interest in the development of the West River Aqueduct and subsequently supported its interest by offering a schedule of standby fees, totalling $15 million. I quote from a key paragraph from our proposal letter of September 16, 1980: "Therefore, if the ETSI project proceeds on the schedule we currently visualize, South Dakota will receive $15,000,000 which it can use for water development purposes, even if ETSI never uses a drop of Oahe water." The full letter is attached for the record (Exhibit 1).

The offer was rejected by South Dakota because of the fear that this agreement might inspire federal intervention in states' water rights. ETSI's analysis is to the contrary: failure to put Oahe water to beneficial use will, in our opinion, inspire federal intervention on the basis of obvious national need. During field hearings on the Draft Environmental Impact Statement for our project, ETSI went on record reaffirming our offer and hope that South Dakota would resume negotiations to implement the concept on a practical schedule. Positive action from South Dakota officials is all that stands between translating this proposal into a plan for action.

In addition to these negotiations with South Dakota on the Oahe, ETSI was also concerned that South Dakota's interests with respect to ETSI's use of the Madison be safeguarded. During the Environmental Impact Statement public hearings, ETSI voluntarily and publicly extended to South Dakota the same protections to existing water users that are required by Wyoming law and that I described to your earlier.

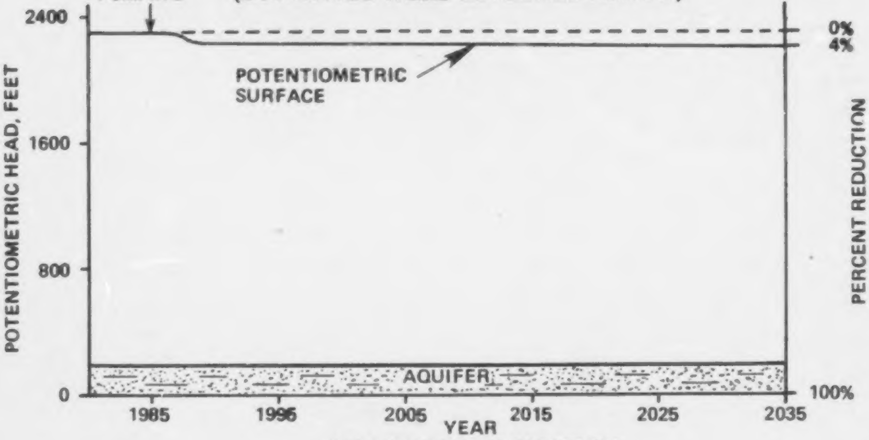
And, finally, ETSI agreed to modify the terminology of the contract so that it protects not only pumpers but all beneficial users of the Madison. This stipulation was made as a direct response to concern expressed during a hearing on the Draft Environmental Impact Statement at Rapid City, South Dakota.

Again, let me stress that sound water monitoring and management such as the ETSI Project offers must take place and soon on the Madison Formation. For example, the forecast data used in the Bureau of Land Management's Environmental Impact Study of the ETSI Project showed that Edgemont's wells are causing drawdown in the Madison under Wyoming. It becomes obvious doesn't it that cooperation based on scientific data and rational management is overdue if the Madison aquifer states and individual users are to live in harmony?

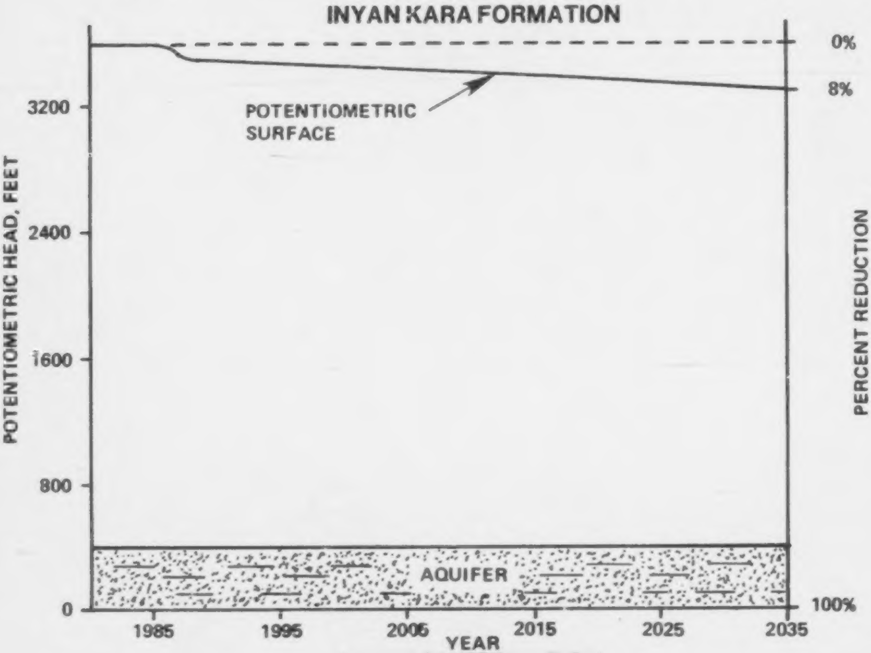
In concluding I would like to submit for the record ETSI's analysis of the Final Environmental Impact Statement on the ETSI Coal Slurry Pipeline Project (Exhibit 3). This $6 million study, prepared by outside consultants under the direction of the Bureau of Land Management, thoroughly examines the projected impacts of the ETSI system. We believe it underscores the fact that slurry pipelines are needed to supplement this nation's coal transportation capability, and that it reinforces earlier findings that the project is an environmentally superior means of transporting coal.

Thank you.

FIGURE 1
CALCULATED WATER LEVEL DECLINES IN THE MADISON AND INYAN KARA AQUIFERS AT LUSK, PLAN 1, CUMULATIVE CASE
(ESTIMATED WELL LEVEL REDUCTION)

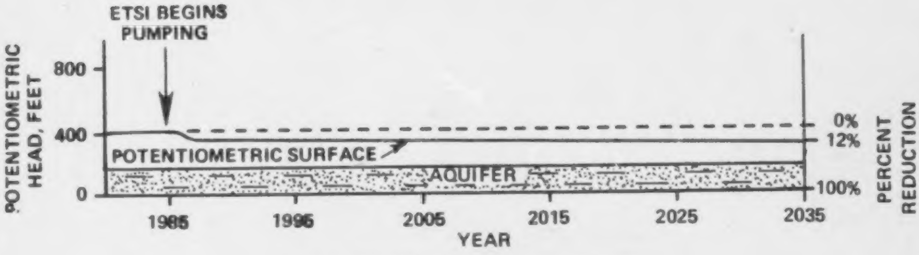


INYAN KARA FORMATION

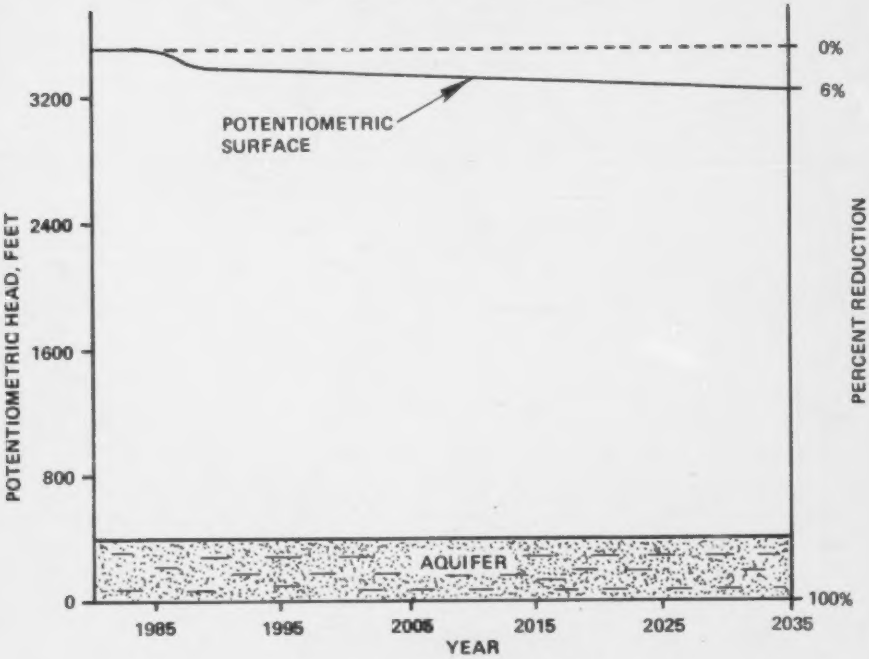


MADISON FORMATION

FIGURE 2
CALCULATED WATER LEVEL DECLINES IN THE MADISON AND INYAN KARA AQUIFERS NEAR EDGEMONT, PLAN 1, CUMULATIVE CASE (ESTIMATED WELL LEVEL REDUCTION)

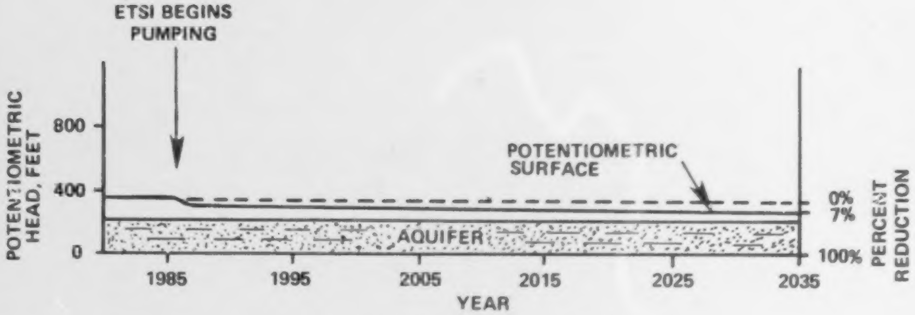


INYAN KARA FORMATION

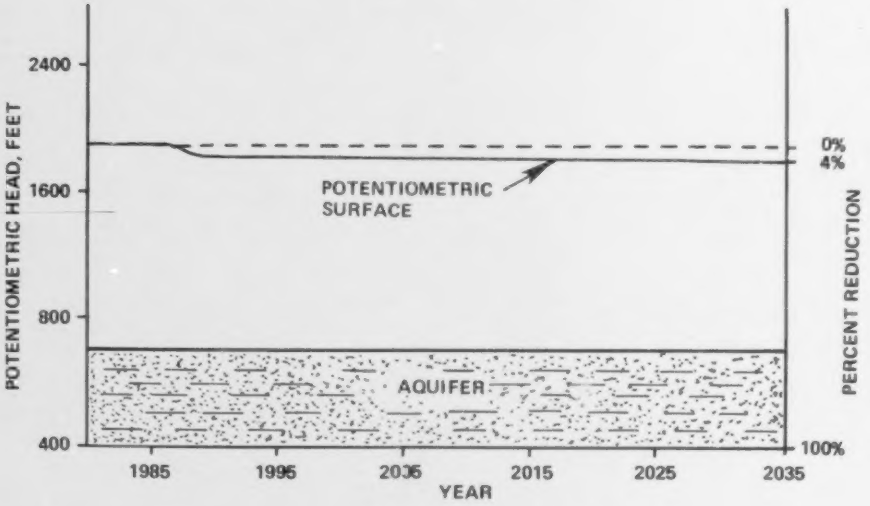


MADISON FORMATION

FIGURE 3
CALCULATED WATER LEVEL DECLINES IN THE MADISON AND INYAN KARA AQUIFERS AT DEVILS TOWER, PLAN 1, CUMULATIVE CASE
(ESTIMATED WELL LEVEL REDUCTION)



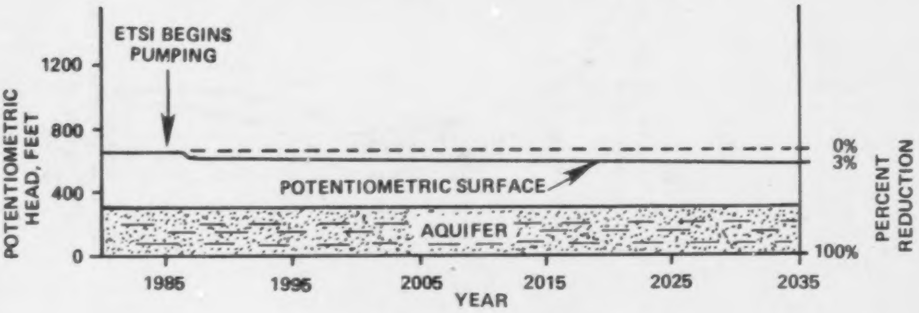
INYAN KARA FORMATION



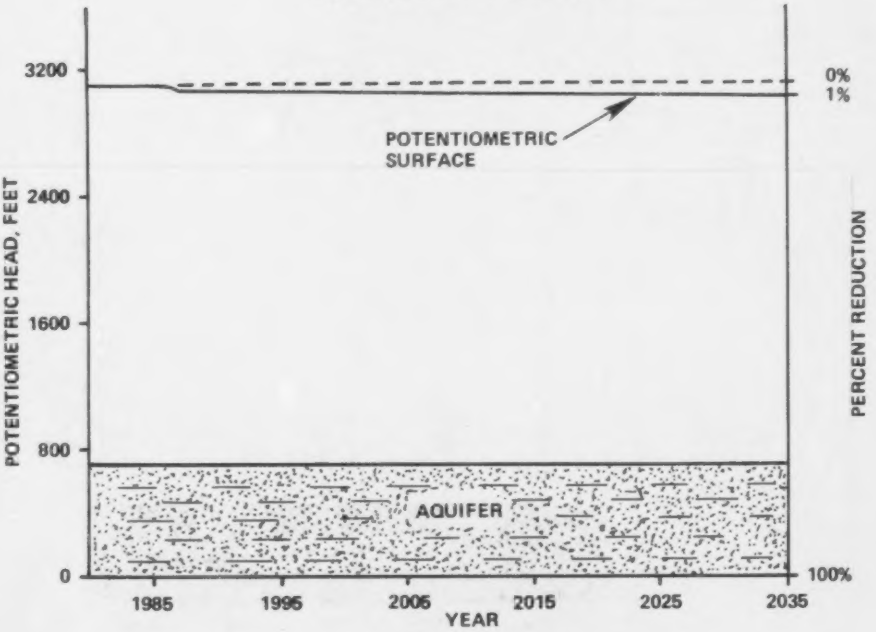
MADISON FORMATION

FIGURE 4

CALCULATED WATER LEVEL DECLINES IN THE MADISON AND INYAN KARA AQUIFERS AT THE CROOK COUNTY WELL FIELD, PLAN 1, CUMULATIVE CASE (ESTIMATED WELL LEVEL REDUCTION)



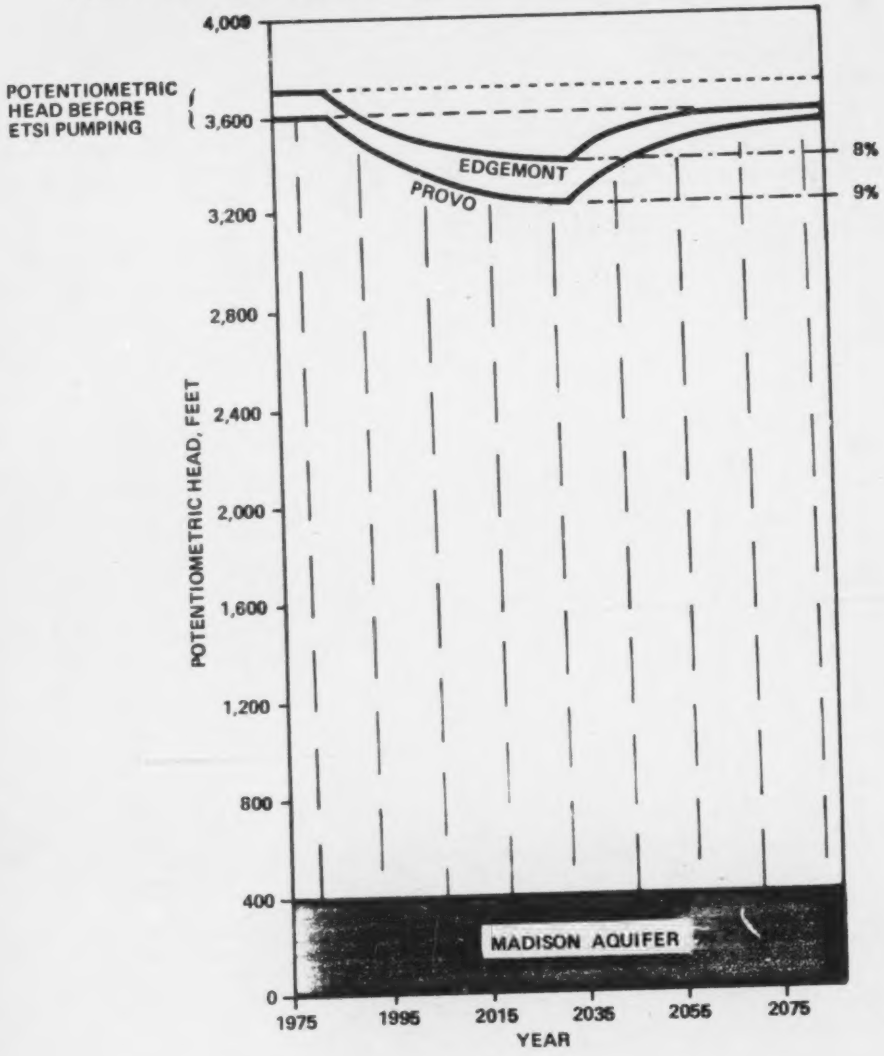
INYAN KARA FORMATION



MADISON FORMATION

FIGURE 5

TIME-DRAWDOWN PLOT AND REMAINING POTENTIOMETRIC HEAD WITH PUMPING FROM NIOBRARA COUNTY WELL FIELD ONLY (PLAN 1)



Energy Transportation Systems Inc.
P.O. Box 7598
San Francisco, CA 94120
Telephone (415) 768-7080

ETSI

EXHIBIT 1

September 16, 1980

Mr. Warren R. Neufeld
South Dakota Department of Water
and Natural Resources
Joe Foss Building
Pierre, South Dakota 57501

Subject: Standby Payments and Monitoring Program

Dear Bob:

Thank you for your letter of August 26th, and we are pleased you agree that ETSI did not misrepresent its position on the West River pipeline. Operating in a political atmosphere such as we do, it is important to maintain in the record that ETSI has dealt with South Dakota in a thoroughly forthright manner.

In view of your letter we have developed the following offer in the hope it will be a constructive advance in our discussions. It is based on the same logic which has guided ETSI in its dealings with South Dakota.

1. ETSI has a legal right to produce water from the Madison Formation. This right has been secured under Wyoming water law and statutory authority to export water from Wyoming, and signed by the governor. We have entered into contracts with landholders in Wyoming to produce water from their lands and intend to honor those contracts. Such water availability is our first option in planning for the ETSI coal slurry pipeline.

2. ETSI has spent some millions of dollars in developing this water source and considering its impact on others. The overwhelming conclusion of the hydrological studies done by independent professional experts is that South Dakota water users such as Edgemont would not be affected adversely by our use of the Niobrara Madison well field.

3. ETSI's permits authorize the production of water from any part of the Madison Formation in Wyoming as long as the water is produced from below a depth of 2,500 ft.

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> This means that in the remote chance of misjudgement by our hydrological experts, we have the option of going to locations in Wyoming more distant from South Dakota areas. Any such alternative using the Madison in Wyoming will be much cheaper than any Oahe pipeline system that has been discussed. South Dakota must therefore recognize that for the current ETSI project we cannot, as a matter of good practice and good economics, justify abandoning the Madison source already approved by the Wyoming legislature and administrative authorities under contract with Wyoming landowners, and using in its place an Oahe system.

Notwithstanding the above, we have recognized that having a water right for the main stem Missouri water may be of value to the ETSI project for an alternate water supply, for fall-back insurance, and for future expansion of the coal slurry program. We therefore seek a right from South Dakota for a standby water source. This right should be transferable to others with the approval of the Secretary of Natural Resources of South Dakota. As evidence of our sincerity we have expressed our willingness to pay for such standby rights, either in cash or service or a combination of these.

In the light of your letter we have considered this anew and offer the following standby payments for a water right of 20,000 acre feet/year. These payments are designed to be progressively binding on ETSI as it proceeds from stage to stage to final fruition and as long as ETSI has a water right:

1. During the preconstruction stage from the time the right is granted to the time that ETSI's construction starts, which is presently contemplated to be 1983, ETSI will pay South Dakota a standby fee at the rate of $250,000 per year. In the event the construction does not start in 1983, the obligation for payment of $250,000 per year would continue until construction does start, but not to exceed 10 years from the time the right was initially granted, unless, of course, the project is abandoned.

2. During the construction and initial operation stage of the ETSI project, ETSI would increase the standby payment to $500,000 per year until operation reached at least 70 percent of capacity (a period of approximately three years).

3. During the operating stage after 70 percent capacity is reached, the payments will increase to a rate of $2,500,000 per year. This payment would be for a minimum period of five years. If, at the end of five years of operation ETSI wished the water right to remain in force, then ETSI must continue to pay $2.5 million per year for a mutually agreed upon new option period.

Therefore, if the ETSI project proceeds on the schedule we currently visualize, South Dakota will receive $15,000,000 which it can use for water development purposes, even if ETSI never uses a drop of Oahe water.

In addition to these standby payments ETSI would obtain the right-of-way for the Oahe pipeline during the preconstruction stage of the ETSI project. However, until a decision is made to go forward with the Oahe project and its size and other specifications are determined, we do not feel it would be meaningful for ETSI to carry out detailed engineering on the project.

We also would offer to South Dakota a protective package which will consist of the following elements, by this ETSI can provide assurances to South Dakota that our use of Madison Formation water will not adversely affect South Dakota Madison users.

a) A Madison Formation monitoring program will be established including monitoring wells. Independent professional third parties will determine the drawdowns (if any) of these monitoring wells. These data will be used to project, on the basis of sound hydrological models, the impact that ETSI's water use would have upon South Dakota users of the Madison. The report of the third parties will be simultaneously issued to Wyoming, South Dakota and ETSI.

b) To the extent that significant impact (significant to be defined by mutual agreement) is projected to occur on South Dakota users, then ETSI would take corrective actions, e.g. as in the case of Edgemont, by drilling deeper wells and paying for additional pumping costs. If this alternative did not seem feasible, then ETSI could change the location of its pumping from, say, Niobrara County to another location. It is important that South Dakota understands that other Madison sources, distant from South Dakota users, are available to us and we are actively investigating such alternatives as a backup to the Niobrara supply. We therefore would be willing to obligate ourselves to the development of other Madison well field locations as part of the protective package agreement.

c) We have consistently guaranteed Edgemont's water supply from interference by ETSI. Agreement has been reached with Edgemont by which ETSI will drill a well for Edgemont. Sites have been selected. Contract terms and well specs are being prepared by Edgemont.

The monitoring program will give ample information on the behavior of the Niobrara well field. The new well will provide additional water for this growing city. It might be beneficial for all three entities, South Dakota, Edgemont, and ETSI to formalize the Edgemont agreement as an addendum to the South Dakota agreement.

d) ETSI is willing to agree to post a bond as surety that it would perform under the contract with the state.

With respect to the Oahe project itself, we feel it is well to handle this complicated matter in a separate letter along with responses to questions raised in your letter of August 26th and Mr. Beavers' letter of June 18th, 1980. Obviously the standby payment agreement outlined in this letter and the Oahe project are linked and would ultimately form a single agreement. We feel it helps to outline in this letter ETSI's basic position on the Madison and the standby agreement, as both of these issues are more or less within ETSI's control. The Oahe project agreement involves the state and will involve considerable discussion between us.

Very truly yours,

E.J. Wasp

EJW:gra

Energy Transportation Systems Inc.
330 South Center Street, Suite 219
Casper, Wyoming 82601
Telephone (307) 265-1800

EXHIBIT 2

June 25, 1980

The Honorable Peter W. Zeimet
Mayor, City of Edgemont
Edgemont, S. D. 57735

Dear Mayor Zeimet:

Thank you and Councilman Brown for the courtesies extended to my wife and me during our Monday meeting.

I felt that the meeting was very productive as you can judge by the copy of my Trip Record which is attached for you.

When you and the Council have had a chance to define the list of conditions you would like to include in a contract, let me know and we'll proceed with the appropriate next steps.

Very truly yours,

Frank Odasz

Frank B. Odasz, P.E.
Vice-President

FBO/cr

Enclosure

cc: Councilman Brown w/encl.

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TRIP RECORD

I met with Mayor Peter Zeimet and Councilman Matt Brown of Edgemont, South Dakota on June 23rd to select a site for the well offered by ETSI in 1974 and accepted by the City Council at that time as defined in the attached resolution.

I reviewed ETSI's interest in Edgemont:

- To protect the people of Edgemont in the improbable event of interference by ETSI on Edgemont's municipal water supply
- To have access to scientific data from the well

Mayor Zeimet presented Edgemont's point of view:

- To protect the people of Edgemont from the threat of damage to the City's water by ETSI's development of the Niobrara well field.

I gave the Mayor a copy of the analysis of the water sample that we collected last October when the "scoping type" meeting was held. The Mayor helped me get new samples for further analyses.

In accord with recommendations by ETSI's hydrologist, I stated these specifications for the well site - from ETSI's point of view:

1 - A location at least 500 feet from any other Edgemont well
2 - Location on the west side of the existing well field
3 - ETSI will require one year of study of the well prior to Edgemont using any of the water

Mayor Zeimet and Councilman Brown showed me two suitable sites:

1 - Edgemont's preferred location is near the Edgemont High School where the water is planned to be used for geothermal heating. This is about 1500 feet south of the westernmost Edgemont well.
2 - ETSI's preferred location would be near the airport about 2100 feet west of the westernmost Edgemont well.

Pictures were taken of both sites and, for historical purposes, a few human interest pictures were taken of the three of us agreeing on the sites.

We also agreed that it would be wise to develop a contract spelling out our agreement. Some of the concepts I suggested are as follows:

1 - Either party can have the right to acidize.
2 - ETSI would case and cement the well in accord with Wyoming's specifications for our other monitoring wells.
3 - Edgemont is to propose the technical specifications for the well for ETSI's review.
4 - Edgemont will remove the overhead electrical line if their preferred location is used. (The decision on this site is contingent upon a favorable conclusion to a technical study now being conducted to evaluate the feasibility of using the 126° F water to heat the school.)

5 - Edgemont will acquire the necessary drilling permits for municipal water.
6 - ETSI's well driller will meet the permitting and licensing requirements of the State of South Dakota.
7 - Edgemont will provide ETSI with a key to the well house.
8 - ETSI requires escape clauses in the event that the Niobrara well field is not developed for any reason. (As examples, I mentioned a war could change the plans dramatically and that the West River Aqueduct or some other source of water might obviate the need to develop the Niobrara well field.)

Both parties agreed to initiate the contract developing by writing down the list of conditions they feel should be in the contract.

I reviewed our timing, indicating that the well would be drilled no sooner than 1983.

The meeting was extremely cordial. Both Edgemont spokesmen presented a reasonable and balanced approach to a cooperative effort between the City of Edgemont and ETSI. Mayor Zeimet stated that he and the other city fathers would be remiss in their duty to the citizens of Edgemont if they declared that the prospect of a well for Edgemont removed their concerns about the effect on their water supply due to ETSI's activities in Niobrara County. I told him that as a former City Councilman myself, I understood his position and welcomed his positive approach towards mutual cooperation.

Frank B. Odasz

FBO/cr

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ETSI

EXHIBIT THREE

ETSI ANALYSIS
OF
FINAL ENVIRONMENTAL IMPACT STATEMENT
ON
ETSI COAL SLURRY PIPELINE PROJECT

The Bureau of Land Management's Final Environmental Impact Statement, released July 13, 1981, clearly defines how the ETSI Pipeline Project will:

(1) substantially diminish the social and environmental impacts that will come with the inevitable increase in utilization of western coal as the U. S. turns to this great domestic energy resource,

(2) help maintain the current U.S. standard of living and contribute to a broader sharing of life's amenities, and

(3) increase the productivity and strengthen the economy of the south central United States.

WHAT IS THE ETSI PIPELINE PROJECT?

The ETSI Pipeline project is a joint venture of five companies committed to design, construct and operate a pipeline system that will set new standards for safety, efficiency, public benefit and environmental acceptability. These companies are Atlantic Richfield, Bechtel, Kansas-Nebraska Natural Gas, Lehman Brothers Kuhn Loeb and Texas Eastern.

The ETSI pipeline will carry low-sulfur western coal in slurry form from mines in Wyoming's Powder River Basin to power plants some 1600 miles away in Oklahoma, Arkansas and Louisiana. The system will be capable of delivering 37.4 million tons of coal annually to generate electric power in major portions of those states.

The project consists of four major kinds of operating facilities: coal slurry preparation plants, a water supply system, coal slurry pipelines and pump stations, and coal slurry dewatering plants. As the EIS reports, "The pipeline operation procedures that would be used on the ETSI System have been used successfully on existing coal slurry and mineral pipelines in operation throughout the world..."

WHAT DID THE BUREAU OF LAND MANAGEMENT FIND?

The Bureau of Land Management's Environmental Impact Statement catalogues the many benefits of increasing U. S. energy production through transporting coal by underground pipeline:

- It is a safe means of transportation
- It maintains healthful surroundings
- It causes little degradation to the environment
- It causes the least possible risk to health or safety
- It allows other surface uses to continue
- It avoids historical and cultural resources
- Its width of disturbance is narrow and generally temporary
- Its right-of-way would be reclaimed

- It causes minimum resource loss
- It benefits local economies
- It provides energy at lower cost than other modes
- It is energy efficient
- It provides for beneficial use of untapped water
- It provides a practical means for future water use research

WHAT ARE THE KEY ISSUES?

Let's look at the key issues the Bureau of Land Management identifies and review the Bureau's findings:

Need for Project.

The Federal government has called for production of 1.1 billion tons of coal by 1985, with more than half of the increased production to come from the western states. Regulations are in place to stimulate a nationwide boiler fuel conversion from oil to coal. Therefore, as the Federal study points out, "The regulations requiring existing power plants to convert to coal and the planned construction of new facilities projects a substantial increased need for low sulfur coal in Oklahoma, Arkansas and Louisiana." The study goes on to say, "The coal transported by the proposed project would be used to generate electric power for major portions of these states."

ETSI plans to transport 37.4 million tons of coal per year. According to the Bureau of Land Management study, projections for coal needed "for just the known, permitted or under construction plants" in Arkansas, Oklahoma and Louisiana amount to 54.4 million tons per year. Thus, "the coal slurry pipeline would augment the existing or projected rail transport of coal to these markets.

Cost-competitive transportation systems would provide an incentive to deliver coal at the lowest possible price," the study points out.

For example, the study says, if Oklahoma is to meet its projected coal needs, "it would require a coal train consisting of 100 cars each having a 100-ton capacity arriving every 115 minutes." And, "in Arkansas, it is projected that by using a coal slurry pipeline rather than rail, rate payers could save up to $1 billion on utility bills over the life of the pipeline."

More Trains or a Pipeline?

The Bureau of Land Management experts looked at alternatives to the ETSI Pipeline System and noted that expanding the railroads to haul the 37.4 million tons that ETSI will transport annually would require adding an estimated 20 daily trains from Wyoming to Kansas City and eight from Kansas City south. "The rail route passes through 136 counties in seven states and would affect a minimum of 2.5 million people in at least 600 communities," the Federal study says. The Bureau of Land Management says impacts would include:

- Community disruption. Mile-long coal unit trains made up of 100 to 110 cars, each carrying 100 tons of coal, would block city and town grade crossings in some 600 communities. The trains would isolate sections of these communities for significant periods of time from ambulance, police and fire services.
- Passenger vehicle delays. In the draft Environmental Impact Study, the Bureau of Land Management demonstrated

this point by quoting a study (Peat, Marwick, Mitchell & Co., 1979) which calculated that by 1986 one community in Wyoming, Torrington, will experience annual vehicular delay at all grade crossings of 2,649 hours -- not counting the 20 trains per day increase in rail traffic that would occur if the railroad hauled ETSI's coal load.

* Air Pollution. Concerning coal dust, the Federal study says, "The actual amount of coal lost would vary with train speed, meteorological conditions, and coal composition, but it appears that losses from a 100-car train hauling 100 tons per car could range from 5 to 100 tons." In addition, emissions from locomotive engines would add to ambient air pollutant concentrations.

* Noise Pollution. Maximum sound levels resulting from railroad operations may range from 50 to 100 decibels. The Bureau of Land Management study adds that "where train noise levels would exceed Environmental Protection Agency suggested noise levels for protection of public health and safety (55 decibels) persons located closer than about 2000 feet from the tracks would be exposed to levels above this limit."

* Water Pollution. Hopper car spills could occur and such spills would have localized significant impacts in the affected body of water.

* Other Human Health Hazards. Approximately 21 rail accidents per year would be expected from the no-action all-rail alternative.

* Wildlife Losses. The Federal study states that "there are

several, often severe, impacts to wildlife that could result from increased railroad traffic. The major impacts of railroad operation on terrestrial fauna would be harrassment and train-animal collisions."

* Failure to Conserve U.S. Oil Supplies. The Bureau of Land Management points out that it is a goal of our national energy policy to "decrease our dependence on foreign sources of energy by promoting the use of coal over oil. Railroads would be powered by diesel fuel, an oil derivative. The pipeline systems would use electricity produced by coal-fired power plants." In its draft Environmental Impact Statement the Bureau of Land Management further emphasized this point by noting that "approximately 2.8 million barrels of diesel fuel would be required annually" if the railroads were to haul ETSI's 37.4 million ton annual load.

ETSI Land Use.

"During construction of the project approximately 22,730 acres would be disturbed," the Federal study reports. "All of the disturbed acres would be reclaimed...These acres would be returned to their preconstruction use where ever possible. Exceptions would be in the case of large trees growing directly over the pipeline. Construction of the surface facilities would require approximately 953 acres, but only 853 acres would be used during the operational phase." At project termination all surface facilities would be removed and these 853 acres would also be reclaimed.

ETSI Water Use

After two years of study, the Bureau of Land Management stated that "conclusive assessments of hydrological impacts can be made only when the effects of large-scale, long-term withdrawal are carefully observed and documented." To arrive at its present projections of what might occur as a result of ETSI water use, a theoretical model was developed based on all existing data. From this conceptual model, a state-of-the-art numerical synthesis was used to calculate future impacts on water levels, water quality, and spring flow and stream flow caused by withdrawals of ground water by present and planned Madison aquifer users, as well as by ETSI.

"Because of the unknowns, the worst-case approach was used instead of developing least likely or most probable scenarios. This was to ensure that the worst case of secondary impacts associated with the drawdowns would also be analyzed," the Bureau of Land Management concluded. The worst-case assessment is, of course, consistent with the goals of the National Environmental Policy Act. However, according to the final Environmental Impact Statement, "the model used to calculate these drawdowns and spring flow reductions was a biased estimation of most probable impacts; the model overestimated the impacts that are most likely to occur; the degree of overestimation cannot be quantified, but the overestimation of most probable impacts may be large."

The Bureau of Land Management said refinement of the model at this time was not possible, "since additional data has not become available." Further, they felt that since "the model does represent a worst-case analysis refinement with new data would only tend to reduce the predicted impacts, not increase them."

While the study does identify a projected pressure reduction in the vicinity of the ETSI wells after 50 years of pumping, such pressure reduction is similar to that which occurs when water is pumped for agricultural or other uses. In any event, as the [redacted] Environmental Impact Statement points out, the pressure loss will be recovered quickly when ETSI stops pumping, and there will be no unrecoverable loss of water since recharge to the Madison will replace that withdrawn by ETSI.

In another important comment on the effects of ETSI's Madison water use, the Federal study points out that "shallow wells (less than 300 feet) are hydraulically isolated from the Madison aquifer by thick, low-permeability Cretaceous shales... therefore, hydrologic impacts on these wells would be insignificant."

The Bureau also pointed out that the ETSI Pipeline Project, with its monitoring and observation wells and stream gauging stations, "would provide extensive new scientific information on the Madison aquifer." The availability of this kind of information would permit the orderly development and use of a major Wyoming water resource now and for future generations.

Rivers and Streams.

The impacts of pipeline construction on river and stream bottom environments would be "localized, short-term and of limited biological significance. Increased turbidity levels would be anticipated to last for only a few hours after completion of construction and to affect a relatively small section of a river or stream within 1,000 feet of the dredging activity."

The Environmental Impact Statement says that the release of a massive amount of hydrostatic test water could also cause stream turbidity. This would be true if the hydrostatic testing of the pipeline were conducted all at one time or in substantial chunks.

In actual pipeline practice, hydrostatic testing is done section by section, rather than on a total project basis. This means that a particular section of the line will be isolated and hydrostatically tested. The water in the tested section is then treated to remove pollutants and discharged at approved locations. Or, the test water can be retained and moved to the next segment of the pipeline, where the testing procedure is repeated for that segment. By following either procedure the entire line can be tested and only a small amount of treated water is discharged at one time or place.

Ruptures and Spills.

The Bureau of Land Management studied the frequency and magnitude of ruptures and spills and chose to use the record of existing liquid pipelines -- regardless of the age of these lines or methods used to minimize spills. The Bureau acknowledges that "because the ETSI pipeline would be new and would utilize state-of-the-art technology to reduce spills," it is expected to operate at less than a projected spill frequency of 1.8 spills per year.

The Bureau of Land Management points out that whatever spill might occur would not result in any risk to the health or safety of humans since coal slurry, unlike oil and gas, is non-explosive, non-flammable and non-toxic. The Bureau also acknowledges that in the entire 10-year history of the Black Mesa coal slurry pipeline, only one rupture has occurred.

Unaffected Resources.

The Federal study reports that a number of resources will not be affected: the ETSI Pipeline would have no effect on climate, geology or topography; no significant impacts on air quality; no significant impacts on wildlife; would not preclude development of mineral resources, and does not intrude on federally-designated wilderness areas. While several federally designated threatened or endangered species are or could be found along the pipeline route the EIS points out that "potential impacts to these species would be minimized through compliance with regulations associated with their protected status.." The study also notes that impacts on cultural resources are "not expected to be significant." In fact, cultural resource inventories to be completed prior to construction will "provide long term benefits to the understanding of earlier cultures ."

Socio-economic Impacts.

The ETSI Pipeline System will bring economic benefits to the communities through which it passes in the form of tax revenues. The Bureau of Land Management notes that "property, sales, and use taxes imposed during construction and operation of the proposed project would contribute to the funding of government services in the counties crossed by the pipeline project."

Another benefit will be the creation of new jobs as construction and operation of the pipeline moves forward. However, in some cases bringing workers into a community can put strains on schools, housing, and other services.

According to the Federal study, "no significant impacts would result from construction of facilities outside Wyoming." In Wyoming, the study notes, construction of the pipeline would bring some 2,600 new people into Campbell, Converse, Weston and Niobrara counties during the peak construction period in the last quarter of 1984. "These increases in population and employment would be absorbed in the overall growth of the area, with only minor impacts on the regional economy." ETSI would cooperate with local authorities in the four counties to seek ways to minimize the impacts. As to operation of the line in Wyoming, the study says, "no significant impacts are anticipated."

Energy Efficiency.

The Bureau of Land Management reports that slurry pipelines and railroads share the position as the most energy efficient means of shipping Wyoming coal.

The study goes on to say, the railroad would use diesel fuel, a large portion of which is imported from foreign sources, while the pipeline, in compliance with U.S. energy policy, would use electricity generated by domestic coal. Thus, a direct raw energy consumption comparison is misleading, and in consideration of this the Bureau of Land Management also evaluated railroad energy efficiency by calculating what would happen if the all-rail alternative were to derive its diesel fuel from domestic coal. The Bureau found that in this case the railroad alternative would require an amount of energy equal to 7.1 percent of the total energy transported. The pipeline would consume an amount equivalent to only 4 percent of the energy transported.

Conclusion.

ETSI is very pleased that after two years of exhaustive, independent study of all aspects of the ETSI Pipeline Project the Final Environmental Impact Statement, in ETSI's opinion, reaffirms the basic premise that the project is an environmentally superior means of transporting coal.

July 15, 1981

CITY OF HOT SPRINGS
HOT SPRINGS, SOUTH DAKOTA
57747

FROM OFFICE OF
City Engineer

14 August 1981

REF: Testimony presented to the United States Water Resources Senate Subcommittee at Rpaid City, South Dakota.

Senator Abdnor:

In December, 1980, 18 formal public hearings were conducted on the Draft Environmental Impact Statement by the B.L.M. The DEIS drew heavy critism from all levels of government, and the private sector rang out in thousands of responses over the inadequacies in the report. Over 90% of the critism was the DEIS's lack of concern for human impact, in particular to those ranchers and communities affected by groundwater drawdown in Wyoming, South Dakota and Nebraska. Yet despite this formal human outcry, the final EIS continues to ignore the ramifications of severe water drawdown.

The drawdown area will affect 3.4 million acres of land, primarily used for agriculture. Average rainfall is less than 13 inches per year. The area is estimated to contain some 2,200 domestic, farm, ranch and community wells. At an average of 30 acres per cow-calf unit, the affected area supports some 113,000 units with a present market value of $96 million per year.

The Angostura Irrigation District will loose an annual 3,200 acre-ft. of water due to the reduction of flow of the Cheyenne River and Cascade Springs. This loss of irrigation water is a loss of some 150,000 bushels of corn annually valued at $.5 million.

The second major industry in South Dakota is tourism. The major tourist attraction in Hot Springs are the warm water springs from the Madison Formation and in particular Evans Plunge. Evans Plunge is credited with attracting 1/2 of the annual tourist business to Hot Springs which is some 140,000 vistors. These tourists are responsible for over $7 million in local income.

The dollars generated by both agriculture and tourism are primary dollars into the region. This money is not spent in Chicago or New York, but locally. Every dollar turns over between seven and eight times before it leaves the area. Between the agriculture and tourism just mentioned, these businesses generate $776 million in local business transactions and produces $36.2 million in local and state sales tax.

Well drawdown and stream flow reduction in the area will also cause additional community expenses in Hot Springs and Edgemont. Municipal water supply wells will need to be deepened. Wastewater treatment facilities will incur additional treatment costs to meet the stream standards with reduced flows.

All these impacts are physical and economical and can be quantified to some degree. But how does one quantify the loss of lifestyle and quality of life that will be forced to change when there is little water to be had. How does one quantify the loss of a family owned ranch or farm that has seen the three and four generations of family, forced to move because their water was taken.

The people of Wyoming, South Dakota and Nebraska are generally supportive of mining coal, oil, uranium and other minerals in the area to make America energy independent. Even after the minerals are exhausted, with proper reclamation, life can continue. However, to exhaust the area of its water is unquestionably inexcusable and intolerable. It is without a doubt that water will be a greater issue in 5 to 10 years than energy is today. It is mandatory that intrastate regulations and interstate water compacts be enacted to insure responsible allocation and uses are made of our most precious water resources.

Thank You.

Submitted:

John P. Scheltens
City Engineer
City of Hot Springs

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT ON PROPOSED ETSI COAL SLURRY PIPELINE

Presented To: United States Department of Interior
Bureau of Land Management

From: Fall River County Commissioners on Behalf of
the Citizens of Fall River County, by

Their Attorneys Marvin D. Truhe and Gary D. Jensen of
Lynn, Jackson, Shultz & Lebrun, P.C.
P. O. Box 8110, Rapid City, South Dakota 57701, and
Dr. Perry H. Rahn, Ground Water Geologist
201 Franklin Street, Rapid City, South Dakota 57701

Presented At: Public Hearing, Edgemont, South Dakota
on December 16, 1980

EXHIBIT "1"

D. PRESENT USE OF MADISON AQUIFER AND AQUIFERS IT SUPPLIES

The South Dakota communities affected directly by the drawdown resulting from the proposed plan include of Igloo, Provo, and Edgemont, each having water wells in the Madison formation and, depending on which study data is used, the city of Hot Springs. The South Dakota Geological Survey Report No. 109, previously cited, alone lists 269 water wells and springs which were the subject of that study, most of which wells and springs occur in the Inyan Kara Group. The Inyan Kara Group consists of the Fall River Formation and the underlying Lakota Formation. (Attached as Exhibit A is a composite list of those water wells and springs taken from Appendix C of the SDGS Report No. 109, supra.)

The 269 water wells and springs referred to above are found in western Fall River County only, and do not include wells or springs in Custer County. In addition, the 269 which are listed are only a partial listing of the total number of wells and springs in that limited area. For example, Keith Anderson, hydrologist, has been conducting hydrologic investigations during the past four years in a 400 square-mile area near Edgemont, South Dakota. In his study area there are about 175 wells producing from the Inyan Kara

Group and Sundance Formations alone. In addition to those 175 wells, the United States Forest Service lists an additional 20 springs on Forest Service land, and Report 109 lists an additional 100 wells both within and outside Anderson's study area. Thus, in the small area near Edgemont which is the subject of Anderson's study plus the area covered by Report 109 there are approximately 300 wells and springs producing from the Inyan Kara Group and Sundance Formations alone. Most of those wells and springs are used by farmers and ranchers in the area for domestic, stock water and irrigation purposes. That same water is also necessary to support the wildlife of that particular area.

With approximately 300 water wells and springs located in the area referred to above, it is reasonable to assume that the total area impacted by the proposed Niobrara well field withdrawal (encompassing in excess of 1500 square miles in South Dakota alone (EIS 4-8)), would include a very substantial number of water wells and springs.

E. FUTURE USE OF MADISON AQUIFER AND AQUIFERS IT SUPPLIES

The future uses of the water resources in southwestern South Dakota is also a significant factor that NEPA requires the EIS to address and indeed the BLM in our case suggests that one of its "major concerns" included the future uses of the Madison aquifer (EIS 1). The future use was not, however, specifically addressed in the EIS.

The anticipated drawdown of 303 feet predicted at Edgemont (EIS 4-4) would not only cause the existing Madison artesian wells at Edgemont to cease flowing, but would also discourage or prevent future use of the Madison by other municipal, industrial, agricultural, or domestic users. The future use of cooperative water ventures, using large capacity wells and wide distribution systems was also a future use encouraged by the SDGS Report No. 109, supra.

In addition, the Edgemont School and several of the Edgemont city buildings are currently being considered for conversion to geothermal heating using the city's Madison formation wells. Detailed engineering studies have been completed on the school buildings. Will the increased ground-water velocity in the Madison formation caused by the proposed withdrawals cause significant cooling of the water at Edgemont? Will leakage from overlying, cooler formations cause significant cooling? Will the increased pumping costs associated with the loss of artesian head make geothermal heating economically unattractive? In short, the future uses of the Madison water are virtually limitless, and the type of anticipated future uses enumerated above can and must take precedence over the proposed withdrawals by ETSI.

F. ENVIRONMENTAL IMPACT ON WATER RESOURCES AND AVAILABILITY OF WATER

(1) Water Resource Impact Recognized In EIS. The BLM indicates in the EIS a very substantial drawdown effect from the proposed plan (EIS 4-8) and goes on to state:

> "Pumping this volume of water for the 50-year project life would decrease the potentiometric (pressure) surface of the Madison aquifer within a region extending north, south, and east from the Niobrara County well field. This region would encompass the western half of Fall River and Custer Counties, South Dakota . . .
>
> Drawdowns greater than 200 feet would occur in over a 2,000 square mile area of Niobrara, Sioux and Fall River Counties. . . These drawdowns would effect some existing Madison water users, primarily the City of Edgemont, South Dakota (Table 4-2). The City of Edgemont currently obtains its water supply from several free-flowing and pumped Madison wells with a present potentiometric surface about 200 feet above the ground. The hydrologic studies conducted indicate that after 50 years of pumping by ETSI, Edgemont would have to pump from below a depth of about 103 feet in order to obtain Madison water.
>
> The predicted drawdowns would also affect ground-water discharge to several surface waters. After 50 years of pumping, the base flow of the Cheyenne River, Cascade Springs, and the springs in the Hot Springs area of South Dakota would be reduced by one cubic foot per second (cfs) four cfs, and two cfs, respectively (Table 4-3)." (EIS 2).

In addition, the BLM recognizes that a decrease in pressure in the Madison aquifer would also seriously affect the aquifers lying above it from which numerous water supplies are taken.

> ". . . Declines in the potentiometric head in confined portions of these aquifers (and virtually all of them are in confined portions) were estimated to be as large as 90 percent of those calculated for the Madison aquifer." (EIS 4-14). (parenthetical clause added).

The practical effect of the above-stated water resource impacts (virtually ignored in the EIS) will be discussed later in this paper.

(2) Worst Case Analysis. When it is extremely difficult to ascertain in advance the full adverse impact of the proposed action, the agency must evaluate the proposed action on the basis of a "worst case analysis" (40 C.F.R. §1502.22(b)(2)). The BLM purports to use a worst case analysis (EIS 2-8, 4-4), but it has not done so. The BLM states that most of its calculations regarding drawdown and stream flow are "estimates" and rely upon computer models rather than unequivocal facts of the properties of the Madison aquifer. This approach is all that can be used given the minimal facts known. What can be faulted, however, is BLM's giving the impression that their data is very accurate when it is not.

> "The predicted impacts of withdrawing 20,200 acre-feet of water annually from the Madison aquifer over a 50-year period were calculated using a numerical model that contains estimates of aquifer system properties. Conclusive assessments of impacts can be made only when the effect of large-scale, long-term withdrawals are carefully observed and documented." (EIS 1,2). (emphasis added).

What the BLM is saying that we can only know the adverse impacts of this proposed plan after the impacts have occurred. The obvious danger of this approach is emphasized by the fact that earlier estimates made by ETSI and the Wyoming State Engineer concerning the impact were clearly erroneous.

> "During 1974 and 1975 ETSI spokesmen assured the public as well as Wyoming and South Dakota officials that there would be no drawdown beyond the limits of the ETSI well site itself. According to a report by ETSI consultants (Anderson and Kelly, 1974, p. 12), 'the effect of the project development will be essentially limited to the area of the well field.' Mr. Floyd Bishop, formerly Wyoming State Engineer, testified before the U.S. House of Interior and Insular Affairs Committees on November 14, 1975 (p. 819) that 'another important fact is that the area

> of drawdown around the ETSI well field is not predicted to extend more than a mile beyond the outer perimeter of that field . . ." (Dr. Perry H. Rahn, Effect of the Proposed ETSI Coal Slurry Pipeline on Water Resources in Wyoming, South Dakota and Nebraska, Proc. S.D. Acad. SCI., Vol. 58 (1979), (pp. 104-05).

These assurances by ETSI continued until very recently, in fact, prior to the publication of the EIS.

> "All of the data was found to indicate that the effects of production pumping at the rates planned by ETSI would be limited to the general area of the well field. The cone of depression, or area of influence, around an individual well was estimated at between 2,000 and 3,000 feet." (ETSI publication, 16).

It is also important to note that the amount of calculated drawdown by the BLM is far less than the drawdown calculated in every other study done in this area. Page 2-2 of the Technical Report, Well-Field Hydrology, done in association with this EIS reflects that the anticipated drawdowns at Edgemont as calculated by other experts reflect a range from 1400 feet down to 330 feet (with the latter figure being a 20 year rather than a 50 year figure). For example, the Huntoon and Womack study done in 1975 at the University of Wyoming indicates an anticipated drawdown at Edgemont of 1100 feet, and would reflect a drawdown at Hot Springs of approximately 500 feet. As compared to those figures, the EIS calculates drawdowns of 303 feet and zero feet respectively for each of those municipalities. (EIS 4-8).
The BLM attempts to show its reasons for basically disregasrding these prior studies, but in doing so only emphasizes its inconsistency with the data it has relied upon, and the inadequacy of the other data it has used. For example, the BLM states that,

> "Konikow's (1976) numerical model of the Madison represents the best conceptualization of the aquifer system in terms of the data available in the mid-1970's, as has also been recognized by the Office of Technology Assessment (1978)." (Technical Report 2-3).

Konikow's evaluations, however, indicate a 330 foot drawdown at the end of twenty years at Edgemont (Technical Report 2-2) whereas the EIS shows an anticipated drawdown after twenty years of less than 200 feet at Edgemont (EIS 4-9). Thus, it is clear that the EIS does not address a "worst case" analysis.

The BLM states in the EIS that:

> "A conceptual model was developed from these studies that explains the hydraulic behavior of the Madison aquifer system. . . . Based upon the conceptual model, a numerical model was designed to simulate the behavior of the Madison aquifer system in the vicinity of the proposed ETSI developments." (EIS 3-2).

An original 3-layer model that is presently being studied by the United States Geological Survey was tested (Technical Report, supra, figure 4-1), but was not used,

> ". . . because the drawdowns calculated using the model were unrealistic." (Technical Report 4-5).

Thus, a 5-layer model was proposed and used for this EIS. Transmissivities, storage coefficients, and leakage coefficients were estimated (Technical Report, Table 4-1), and the numerical model yielded predicted drawdowns shown in the EIS (e.g., Map 4-1, Figure 4-1, and Table 4-2, of EIS).

The model used for this EIS involves many assumptions and estimates, but no one knows what the drawdown will be until the pumps are turned on. By the BLM's own admission,

> "Data on these parameter estimates, especially those pertaining to the hydraulic connection between the Madison aquifer and adjacent formations, were very limited." (Technical Report 7-1).

There are many assumptions for which no explanations are given:

> "Transmissivities in both the Red River and Madison aquifers were specified as being 16 times greater in a northeast-southwest direction than in the northwest-southeast direction." (Technical Report 4-2).

In the model used, the Old Woman Fault was used as a low leakage barrier, when in fact the fault displacement of the Madison does not continue along the strike of the fault, and water could migrate around the ends; or as stated:

> "Alternative explanations involving a region of high transmissivity, possibly along the Old Woman Fault . . ." (Technical Report 4-15) (emphasis added).

In addition, the numerical model upon which the EIS was apparently based is one that is currently being developed by the United States Geological Survey (Technical Report 2-3), but that report has not even been completed. The BLM refers to its reliance upon this document with the following qualifications:

> "A preliminary set of data from this model . . . was released in July 1980 . . . An attempt to use this data for assessing the ETSI impact was made by the study team . . ." (Technical Report 2-4). (emphasis added).

Thus, the EIS was prepared based upon an "attempt" to use a "preliminary set of data" from a yet uncompleted study and unpublished report.

The model that the BLM attempted to utilize in this EIS, therefore, was only the latest of a series of models that have been used in the past. Doubtless, different models will be generated in the future, at which time this whole model may be thrown out by future researchers much in the same manner as the BLM ignored earlier models when preparing this EIS.

Having recognized the problems with the conceptual model that was used in this case, a look at the probability distributions as shown in the EIS is appropriate.

Page 4-12 (missing from the original EIS but subsequently issued) clearly indicates that an arbitrary point was utilized on a probability range distribution of anticipated drawdowns. That arbitrary point of twenty-seven percent (27%) probability is clearly not the worst case analysis, as there is a five percent (5%) chance, for example, that drawdowns approximating 400 feet would occur.

In order that no one will be dissuaded by the argument that the drawdowns are predicted on a fifty year basis, it is important to point out that once ETSI starts pumping from a well field, the drawdown effect will be virtually instantaneous.

> "Far more critical to evaluating the impacts of the ETSI project is the determination of the decline and pressure of the artesian aquifer, which is an almost instantaneous response to pumping from an aquifer . . . Artesian aquifers with very low co-efficients of storage are highly susceptible to drawdown from ground-water withdrawals (Walton 1970)." (Rahn, supra, at 104).

The BLM apparently recognizes this in that they show a drawdown at the well field itself in excess of 200 feet within the first year alone and a drawdown in excess of 75 feet in Edgemont in the first five years of the wells' operation. (EIS 4-9).

It is important also to note that all of the studies done earlier and referred to at page 2.2 of the Technical Report were based upon a withdrawal of approximately 15,000 acre-feet per year, which would tend to make those figures low by a factor of approximately 33 1/3%. The EIS on the other hand utilized the higher figure of 20,200 acre-feet per year which is the amount that ETSI is currently requesting. (NOTE: As recently as two years ago ETSI had stated, "ETSI will use 15,000 acre-feet of water annually from a massive aquifer called the Madison Formation to supply the slurry for its pipeline system." (ETSI Publication 15). ETSI's current anticipated withdrawal, of course, is 20,200 acre-feet per year).

The regulations clearly require that when there are gaps in relevant information or scientific uncertainty, the agency shall make clear that the uncertainty exists and either obtain the information, or if that is impracticable or impossible, seriously consider the alternative of no action. If the agency proceeds anyway, it shall include the worst case analysis referred to earlier. (40 C.F.R. §1502.22).

It is evident that the BLM failed to recognize the scientific uncertainty in this area, and the speculative nature of their assessments, when they give estimates of drawdown, for example, in the Edgemont area using three significant figures (e.g., 303 feet).

At the very least, in our case, the unknowns and scientific uncertainty concerning the impact of withdrawing water from the Madison aquifer are so obvious that serious consideration should have been given to obtaining the water from other sources (such as the West River Aqueduct or supplementary wastewater or mining water sources) or from utilizing a different method entirely (such as recycling the water, or the all-rail alternative). As will be seen later, none of these alternatives were discussed seriously.

(3) Water Resource Impact Using Data From EIS. Even though the data utilized in the EIS is seriously flawed, the rest of this paper will address the critical deficiencies in the EIS itself even assuming that the technical data contained in the EIS is correct. It must also be noted that the data contained in the EIS is based upon a fifty year project life, that is based upon pumping for a period of fifty years only. This fifty year life is, however, the minimum design life of the project (EIS 1-6) and should the coal slurry pipeline continue operating after fifty years, the adverse impacts on drawdowns and spring flow would continue to occur in an increasing manner (see figure 4-1 at EIS 4-9). (NOTE: The physical life of the pipeline itself will be as long as 100 years. (ETSI Publication 7)).

Once again, utilizing the data contained in the EIS itself, a look at the environmental impact of the proposed withdrawal is paramount. As was earlier discussed, and is shown in the EIS itself, the drawdowns in the Madison and upper aquifers and the stream flow depletion are substantial and will last for generations. While the EIS discusses the water resource impact in technical form (e.g., drawdowns of 300 feet or 400 feet), it never really addresses the practical ramifications of those numbers. Some of the practical impacts resulting from these drawdowns and reduced stream flows are summarized as follows:

The impacts will unquestionably be felt in wells and springs currently being used by agriculture, industry, and municipalities. The depth of many of these existing wells is less than the drawdown projected by the EIS. These wells will completely dry up. The yield of many of these wells is presently barely adequate for their present use, and the significant lowering of the water table as anticipated in the EIS will render the yield totally inadequate. New wells would have to be dug at a greater depth to replace these water resources. In addition, many of the wells are flowing wells which require no pumping whatsoever. Lowering of the water table will make it necessary for the farmers, ranchers, municipalities, and other users to install costly pumps and furnish power to those pumps. The economic impacts alone would include costs associated with increased pumping lifts, installations of pumps and appurtenant equipment, providing power supplies to wells which cease flowing, replacement of wells which are unsuitable for pump installation, replacement of wells which are totally dried up or are no longer able to produce adequate water, loss of water for irrigation, and many other associated impacts.

For example, a look at the 269 water wells and springs which were the subject of the SDGS Report 109, supra, will serve to illustrate. As was previously mentioned, the majority of those water wells and springs occur in the Inyan Kara Group, and the hydrologic connection between the aquifers is discussed in the SDGS Report 109.

> "The two aquifers of the Inyan Kara Group are recharged from depth by the Minnelusa Formation through fault zones and breccia pipes." (SDGS Report 109, 1).

Likewise, the BLM has recognized this hydrologic connection between the aquifers. In Figure 3-2 found at page 3-14 of the EIS, it is indicated that there is a large amount of ground water movement upward from the Madison aquifer into overlying strata, including the Inyan Kara Group. The EIS further states that the base flow of many streams is supported by upward leakage from the Madison seeping through younger strata (EIS 3-15), and that a decline in water level in confining beds in the Sundance Formation and Inyan Kara Group,

> ". . . were estimated to be as large as 90 percent of those calculated for the Madison aquifer." (EIS 4-14).

This latter statement is significant in that it indicates that the declines in water level are certainly not limited to the Madison aquifer, but extend to the upper aquifers also which it is calculated would suffer water declines 90 percent as great as those predicted for the Madison. Despite this significant statement concerning upper aquifer water decline, however, and despite the fact that the majority of wells and springs in the area are fed from those upper aquifers and not from the Madison, the BLM makes no further discussion of the impact in these overlying aquifers either in the EIS or the accompanying well field hydrology technical report.

A look at the SDGS Report 109 lists 69 wells and springs known to be in the Fall River Formation, of which 31 are flowing artesian wells, and 19 additional wells have static water levels at about a 40 foot depth. The report goes on to state that,

> "The Fall River Formation is the largest producing aquifer in western Fall River County . . . The Fall River aquifer underlies most of Fall River County . . . Its sandstones produce artesian water and most of the wells located within the Cheyenne River valley northwest of Edgemont are flowing wells." (SDGS Report 109, 24).

The report also lists 57 wells and springs known to be in the Lakota Formation, 17 of which are flowing wells, and an additional 29 have static water levels typically at about the 60 foot depth. The Lakota Formation is likewise of great importance to Fall River County.

> "The Lakota Formation is the second largest producing artesian aquifer in the area. Generally, its hydrologic characteristics are quite similar to those of the Fall River Formation. . ." (SDGS Report 109, 24).

The wells in both the Fall River Formation and the Lakota Formation are used by individual ranchers for domestic and ranching water supplies, and Appendix C of the SDGS Report attached (Exhibit A) lists many of those individuals by name. A look at the characterictics of those wells will serve to illustrate the impact on those individual ranchers.

> "Most of the wells obtaining water from this formation are located upstream from Edgemont within the Cheyenne River valley. The depth to the production zone in that area is 90 to 180 feet on the north side of the river, and 200 to 250 feet on the south side of the river." (SDGS Report 109, 24).

According to the EIS Map 4-1, (EIS 4-8) the average drawdown in the Madison aquifer in the Cheyenne River valley between Angostura and the Wyoming state line will be about 250 feet. If the Inyan Kara Group drawdown is 90 percent of the value (EIS 4-14) the drawdown will average about 225 feet. As can be seen, most of the Inyan Kara Group wells will not only have lost their artesian head, they will be completely dried up. The 31 flowing artesian wells in the Fall River Formation and the 17 flowing wells in the Lakota Formation will cease flowing, and the 48 water wells with static water levels at the 40 to 60 foot depth will dry up completely and new and deeper wells would have to be drilled.

With this evidence contained in the EIS itself of the devastating effects of the anticipated drawdowns on Fall River County residents, the following statements made by ETSI earlier are noteworthy.

> "Official approval for the withdrawal came after an extensive test program showed there would be no effect on others using the same source of water." (ETSI Publication, 15) (emphasis added).

> "As the diagram shows, the Madison Formation is separated by several impervious rock layers from the shallower water sources now in use. From test results, it was concluded that the impact of pumping would be confined to the ETSI well field and there would be no effect on the existing wells at shallower levels or in other areas. The State Engineer issued permits for 40 production wells." (ETSI Publication 17).

In addition, the EIS limits its comments on agricultural impact to the loss of farm land. However, one of the most serious impacts will of course be the actual loss of water for agricultural purposes since large volumes of water from the Madison, Minnelusa, Sundance, and Inyan Kara aquifers supply stock and domestic water for agriculture. Loss of water for irrigation must also be addressed since the

EIS estimates that the anticipated loss of flow at Cascade Springs will be 4 cfs. This amounts to 3,000 acre-feet per year and since the flow of Cascade Springs is already appropriated for irrigation, this additional loss of 3,000 acre-feet for irrigation use is significant. This is enough water to irrigate 1,000 acres, and with a potential loss of 1,000 acres of irrigated crop land from this one spring alone, the total loss of potential irrigated crop land from all wells and springs is substantially greater. These impacts were not discussed in the EIS.

Finally, since the State of Nebraska will also be directly affected by the decline in water tables, it should be pointed out that there is a hydraulic connection between the Madison aquifer and the overlying Arikaree Formation (EIS 3-15). This is an aquifer of great importance to western Nebraska which will also suffer the impacts from the projected water withdrawals. These impacts were not adequately addressed in the EIS.

TESTIMONY OF JIM MacINNES, SIERRA CLUB

before

The Water Resources Subcommittee

Senate Committee on Environment and Public Works

regarding WATER POLICY

August 14, 1981

HEARINGS ON WATER POLICY, PORT DEVELOPMENT,

AND INLAND WATERWAY DEVELOPMENT

My name is Jim MacInnes. I'm Chairman of the Black Hills Group of the Sierra Club and Conservation Co-Chairman of the Sierra Club's Dacotah Chapter. I appreciate the opportunity to present to you our views on energy-related water development in our area. Sierra Club Vice-President Ted Hoffman has presented our views on conservation and cost-recovery. I wish to address the issue of prudent use of western water for energy projects.

As you know, the most dramatic and pressing water issue in the Black Hills region is the proposed Energy Transportation Systems, Inc. - or ETSI - coal slurry pipeling for delivering Wyoming coal to new electricity generating plants in Arkansas and Louisiana. The proposed plan would use Madison aquifer water, pumped from a Niobrara County wellfield in Wyoming, as the transport medium for the pulverized coal. The controversy arises because the Madison aquifer underlies several other states, because it is of vital importance to the Black Hills region, and because the Niobrara wellfield is so close to the borders of both South Dakota and Nebraska.

Many individuals and groups in this area have united in opposition to this plan. The Black Hills Group of the Sierra Club is one of them. In 1980 we passed a resolution opposing the use of Madison formation water for transporting coal out of state in a slurry pipeline. Subsequently, the Dacotah Chapter and the Northern Plains Regional Conservation Committee, which establishes our policy for the Dakotas, Nebraska, Wyoming, and eastern Montana, concurred in the resolution.

Why are we opposed to this use of water? We have two responses: the traditional one based on the scarcity and value of water in this semi-arid region, and a response that examines energy policy in a broader context.

The last two years of drought have brought home to us once again how precious our water is. Fish, wildlife, and aquatic vegetation fluctuate according to the supply. Farmers, ranchers, and communities in our area must have dependable wells. Yet the proposed use of Madison aquifer water for the slurry pipeline will draw down those wells and adversely affect surface flow. We will not at this time argue the adequacy of the Environmental Impact Statement. The question is not whether the water table would be drawn down. The only question is how much it would sink.

We feel that this precious supply of water must be reserved for careful and conservative use by those who have traditionally relied upon it: the residents of this area - the farmers, the ranchers, and the communities. Considering that this region is semi-arid, it seems frivolous to us to use ground water for a slurry pipeline. Considering the likely adverse effects on agriculture, fish and wildlife, recreation, and tourism, we are convinced that use of Madison formation water for this pipeline is completely unacceptable.

we would not necessarily oppose the project if the water could be supplied in a way that would not cause environmental damage. Of the water sources discussed in the EIS, we would favor the Wastewater Alternative Water Supply System, if there would be no problem with downstream water rights. This is clearly the best environmental choice,. if the new power plants are indeed needed.

We have just seen a copy of Senate bill 1525, introduced by Senators Abdnor, Pressler, Exon, and Zorinsky. As you may know, the bill directs the Army Corps of Engineers to study the effects of a coal slurry pipeline on the Madison aquifer, requires a ninety-day waiting period after completion of the study before federal rights-of-way or permits may be granted, and forbids the granting of any federal right-of-way or permit if there is a likelihood of significant drawdown, unless the governors of each affected state concur.

I have polled the members of the Black Hills Group's Executive Committee. We unanimously favor this bill, which appears to offer a strong protection against misuse of Madison formation water.

In the next part of our response we would like to present for your consideration a view of energy-related water development in a larger context.

First, I would like to point out that energy projections indicating the need for new generating plants have often, in recent years, proven to be much overestimated. We do not necessarily contend that this may be the case here. Why do the projections sometimes fail? Because people are using energy more wisely. Energy efficiency and conservation are the hallmarks of this wiser use of energy.

Recent polls indicate great public support for and confidence in conservation as an energy source. I will mention two such polls: a Union Carbide survey made in 1980 and a National Geographic poll released in February, 1981.

What does energy efficiency and conservation have to do with wise use of scarce western water? Simply this: the West, according to some scenarios, is to become the energy supplier for the nation. Electric generating plants use a lot of water. The unproven synthetic fuels technology uses enormous quantities of water. Shouldn't we do our best to avoid unecessary use of our limited water supplies?

We submit that the way to do this is through a national energy policy that emphasizes efficiency, conservation, and renewable resources. Conservative studies indicate that this approach will provide the energy we need more quickly, more cheaply, with less social and environmental disruption and fuller employment than any other policy. I will cite three such studies: Energy Future, the Report of the Energy Project at the Harvard Business School; the Department of Energy's Solar Energy Research Institute study, recently made public by Rep. Richard Ottinger; and an Electric Energy Conservation Study prepared for the Bonneville Power Administration by Skidmore, Owings, and Merrill. There are many other such studies. Further support of this point of view is provided by the fact that many utility companies are now actively promoting the conservation option.

One of the beauties of this efficiency-conservation approach is that western water can be saved for agriculture, for recreation, for wildlife habitat. The water must not be wasted for power generation when there is a proven better way. Let me quote from the Sierra Club Water Policy: "New energy developments should not be allowed if fish and wildlife habitat, water quality, instream stock watering, scenic and recreational values, or existing agricultural operations would be significantly damaged. Aquifers must be protected from depletion or degradation. Development of alternative energy systems requiring minimal water supply should be encouraged."

We in the Black Hills Group support that concept, and we hope that in your deliberations you will consider the whole picture of energy-related water use, of which the ETSI coal slurry pipeline is but one part.

Again, we appreciate and support the efforts of Senator Abdnor and his colleagues to protect Madison aquifer water. Thank you for this opportunity to present our views.

TESTIMONY
to
WATER RESOURCES SUBCOMMITTEE
of the
ENVIRONMENT/PUBLIC WORKS COMMITTEE
of the
UNITED STATES SENATE
presented by
Ed Glassgow, Manager-Treasurer
Black Hills Conservancy Sub-District
August 14, 1981
Rapid City, South Dakota

Gentlemen, my name is Ed Glassgow and I serve as the Manager and Treasurer of the Black Hills Conservancy Sub-District with offices here in Rapid City. The Sub-District is a multi-county unit of government with very broad responsibilities for the conservation and development of the water resources of the Black Hills area. The Sub-District is governed by a locally elected 9-person Board of Directors and supported entirely by a minimal tax levy in its area.

The Black Hills Conservancy Sub-District was actually created over 15 years ago out of the desire of local residents to have water from the Missouri River transported into western South Dakota. Although the concept was effectively shelved for many years it was resurrected during our nation's energy crisis of 1973-74 when it became apparent that water would need to be imported into the coal fields of eastern Wyoming to facilitate the development of that resource.

Our Sub-District - with our sister organization, the West River Conservancy Sub-District - did a conceptual study to see if we could accomplish our objectives in this new arena of energy development. The report said it indeed was technically and economically feasible and felt the benefits to our area and state would lead our citizens to pursue a project of piping water across western South Dakota to the coal fields of eastern Wyoming.

This original study was followed by a more in-depth study sponsored by the State of South Dakota and our two Sub-Districts through a grant from the Old West Regional Commission. This report added flesh to the previous efforts and more specifically identified the details of the project.

During this period our Sub-District - and the West River Sub-District - continued to identify and evaluate the water needs that could be met from a West River Aqueduct that would pipe water from the Missouri River across western South Dakota to eastern Wyoming. We have identified 25 communities and 9 rural water systems that could be conveniently and adequately served with a dependable supply of high quality water from such a system. The governing bodies of most all of these have passed resolutions of support of the concept and expressed a desire to be included in such a system. Many of these have no other alternative so our Board feels very strongly about pursuing the concept.

The success of such a system is dependent on one factor - a customer at the end of the pipe that would be willing to commit to a long-term supply of water. Although there is a great deal of activity in the coal fields only one company has raised their hand at this point to say they would be willing to make such a commitment. That is Energy Transportation Systems, Inc. (E.T.S.I.). For this reason we have followed their activities very closely for over 5 years.

Our concern with E.T.S.I. is many-faceted. Since they are the first identified potential customer that could make our West River Aqueduct project possible we are concerned that they succeed in developing their coal slurry pipeline.

Second we are concerned that they would draw down the Madison formation, so we feel any such action should be offset by effective mitigation measures that would assure our citizens of minimal impact.

Third we have mixed feelings on the development of the proposed Waste Effluent Transport System (W.E.T.) that would utilize the wastewater from Black Hills area towns for a water supply for E.T.S.I. We recognize the benefits of eliminating the need to use the Madison formation and the elimination of the need for extensive expenditures by Black Hills communities for additional treatment plants. However the W.E.T. system does not meet our objective of bringing the fresh supply of Missouri River water into western South Dakota. It would provide the water necessary to E.T.S.I. to develop their initial coal slurry pipeline and prove their concept which would undoubtedly grow to require the construction of the West River Aqueduct.

In summary let me say our Board would encourage the development of the E.T.S.I. coal slurry pipeline but would prefer that it be done through the use of water from the abundant supply of the Missouri River in South Dakota so that the citizens of our state can share in the benefits of energy development of the region.

BLACK HILLS ALLIANCE

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Respectfully submitted to the Water Resources Subcommittee
by the Black Hills Alliance
August 14, 1981

First, I must express my concern that all those testifying were apparently invited and all seem to have the same predominant feelings, which I don't believe to be representative of the general population.

Secondly, I do realize, at the same time, that time does not allow for every individual who has concerns to be able to speak regarding those concerns. However, Sen. Abnor, being from South Dakota, you are certainly aware that the state has a large population of Indian people. I'm very concerned that no one was invited to speak to their concerns, particularly since the 1868 Ft. Laramie Treaty is an unresolved issue at this time. It seems inconceivable that anyone can even be talking about allocating South Dakota water at this time with the Treaty being unreselved and not even mentioned at this hearing!

Citizen opposition in both South Dakota and Wyoming must be listened to because we are the people who will pay for ETSI while the coal companies and those involved in the pepeline will be the only beneficiaries.

Costs to South Dakota:

1) Loss of water through drastically lowered water tables in the Madison Formation. Obviously, no one knows with any accuracy the recharge rate of the Madison. There is no real way that ETSI can compensate rural people for a possible loss of livlihood.
2) Possibility of temporary boom towns during construction of the pipeline and then probable railroad layoffs. Burlington Northern alone has 6500 coal-related jobs, many of which would be in jeopardy.
3) Loss of water through the wastewater (WET) plan. Farmers and ranchers use that water that is discharged. Considering that in the last two years, many small streams in the Hills did not flow, Rep. Thorstenson's plan of adding that water as a supplement to the wastewater would be unworkable.
4) The West River Aqueduct would bring more water into western South Dakota and eastern Wyoming, but would make uranium and taconite mining as well as coal gasification plants all the more immediate, for South Dakota as well as Wyoming.
5) The 1868 Ft. Laramie is presently unresolved and there are water rights that go with that.

Benefits to South Dakota:

None demonstrated and none acknowledged by South Dakota residents at any level from state government on down.

Demonstration of need for coal transportation:

1) Only statements regarding energy independence, which I would regard with suspicion.

   Why slurry coal to an area near the Appalachian coal deposit?

   Exports of coal have greatly increased. It was stated in a World Coal Study that American coal can provide the world with 1/2 to 3/4 of its energy needs by the year 2000. The Norfolk-Western Railroad had a booming business in 1980 largely due to increased coal shipments to Japn and Poland. Exports have been increasing at 11% annually.

   Energy alternatives and conservation are not stressed. By the year 2000, 45% of our energy consumption may well be used for the generation of electric power!

Environmental common sense:

1) While it is true that a pipeline makes more environmental sense than a huge coal plant or a coal gasification plant, that's not saying much.

2) What is the sense in using a transportation form which eats up one ton of water (from whatever source) for every ton of coal shipped and employes very few people, as opposed to the railroad, for example, which uses no water and employs more people. And the tracks are already there, the railroad is already moving coal.

In summary, the only beneficiaries are those giant multinational corporations that have holdings all over the world and can still benefit by whatever decision is made. They don't need the virtual "gift" of our water (our livlihood)--they can afford to pay premium prices more easily than the residents. They are obviously looking out for their own welfare alone. We must, likewise, look to our future and the future of the coming generations.

BIG D OIL CO.

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August 13, 1981

Senator James Abdnor
4241 Dirksen Senate Office Building
Washington, D. C. 20510

Re: Flood Damage Prevention
Ordinance, Spearfish, SD

Dear Senator Abdnor:

As the owner of Lots 4, 5, and 6 of Block 5, Spearfish, South Dakota, which property is designated as floodway land by the proposed ordinance, I would like to make the following comments:

1. The flood insurance rate map, which is the map the federal government is forcing the city of Spearfish to use as a reference for the ordinance, has incorrect elevations. Further, property-owners directly affected by the map were not notified by the city council so they could examine the map for detail and verify its accuracy. True, a public meeting was held August 30, 1979, but for a matter directly affecting their property, landowners should have been officially notified when property zoning classification was being changed. If this is not a legal requirement, it surely is a moral one on the part of Spearfish officials and the federal government.

2. The floodplain map is an interpretation of a federal official based on information available to him. The map is an approximation. To check an approximation against data is a difficult task, almost impossible for an individual landowner to determine. Therefore, the federal government is placing an almost insurmountable task in front of the property owner to protect value of his property. One of the basic tenets of ownership is that the owner be allowed to use the land for its highest and best use. This inaccurate flood map deprives the landowner of that right.

3. Spearfish has never suffered a flood such as these maps are trying to project; therefore, one person's opinion is as good as the other. Rapid City, which had a major flood in 1972, has never been officially designated by the so-called experts as a 100-year flood or a 500-year flood. Once again, the federal government should not be in the business to determine what might happen 1, 10, 50, 100 or 500 years at the detriment of propertyowners in 1981. People directly involved, who are the people of Spearfish, should be able to designate their own flood map and actions pertaining to that map.

4. A reasonable extension of the voluntary program now in effect on the part of the federal government would seem in order to allow all interested parties an opportunity to put their input into the flood map. The voluntary program has been in effect for five years now, so a reasonable extension does not seem to be out of line.

5. It would further appear that officials of Spearfish should not be forced to certify a map they know is incorrect merely to satisfy the persistence of the federal government. Local officials should be assured that any ordinance they enact is correct and good for their community.

6. The seriousness of the ordinance has been continually downplayed so that people of Spearfish were unaware of its impact. It is suddenly being forced on us by this September deadline. Real estate people, appraisers, bankers, businessmen and others were all unaware of this potential problem until the ordinance was suddenly presented by the city council.

Your consideration of the above comments is appreciated.

Very truly yours,

Donald A Policky

DONALD A. POLICKY

DAP/rnp

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August 13, 1981

TO: Senator Abner

FROM: Donald L. Brown

SUBJECT: Senate hearings on water use including the Coal Slurry Pipeline.

Throughout last year, testimony regarding the enviromental impact by the Energy Transportation System Inc. (ETSI) proposed pipeline from Wyoming to Arkansas has consisted of geological and hydrological experts, government agencies, state and local organizations and concerned citizens. An overwhelming majority of the testimony at the hearings at which I have participated (including Edgemont S.D. and the Wyoming State Legislature) has opposed the construction of the ETSI pipeline. The objections have been based both on emotional concern and technical issues; my comments to you are on the technical aspects of the predictive model that has been submitted to the Bureau of Land Management by Woodward-Clyde.

I was in charge of the subsurface geological portion of the Madison Limestone study conducted by the U. S. Geological Survey from 1976 to 1980. This multimillion dollar study was probably the most detailed multi-disciplined hydrological evaluation of the Madison Aquifer and associated rocks ever conducted. The Madison Aquifer and associated rocks were investigated from the standpoint of subsurface geology, geochemical analysis of groundwater, geophysical analysis, surface stream evaluation, and digital modeling. The conclusions of the EIS statement, based on the Woodward-Clyde model are in many instances directly opposed to the conclusions based on the USGS study. It is true that much of the USGS study data were not available to Woodward-Clyde to be used in their model; but, in my opinion, enough discussions between the groups indicated that differences of opinions existed and that should have constitued enough reason to delay the EIS statement until the USGS study data were available.

As I have stated in previous testimony, considering the limited time and data Woodward-Clyde did an admirable job in producing a hydrologic model of the Madison aquifer system. Unfortunately, the model they ended up with, in my opinion, is not a true representation of what may occur if the ETSI well fields are pumped. This is due to several reasons including the following:

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1. The Woodward-Clyde model is based on interconnected karst zones and matrix porosity being the primary producing zones in the Madison formation. The geological study indicates that karst zones are not interconnected on a regional basis, and that the movement of fluids in the Madison Limestone is highly influenced by fracture porosity and permeability.

2. The model is less sensitive to transmissivity changes than it is to changes in storage coefficient. The storage coefficient of a fracture zone or solution opening along a fracture zone is practically infinite compared to the storage coefficient of a matrix porosity reservoir.

3. The Woodward-Clyde model is based on isotropic flow in a homogeneous media rather than anisotropic flow in an inhomogeneous media as suggested by the results of the geological analysis. Directions of anisotropy are aligned northeast and northwest. The northeast anisotropy (represented by fracture zones) apparently act as conduits to fluids while the northwesterly fractures tend to be barriers to flow.

4. To the best of my knowledge, there are no digital models or analog models that can reliably handle regional fractured reservoirs.

5. Woodward-Clyde state in their report that the aerial distribution of high transmissivity zones can significantly affect computed drawdowns and that the exact aerial distribution of the zones could not be determined. Their model smooths out the drawdown so that regionally the model may closely simulate observed data, but wells along a zone of high transmissivity may vary considerably from that predicted by the model.

The USGS study, including a digital model currently being prepared by Joe Downey, is based on five years of input rather than six months; it utilizes detailed as well

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a regional geological moldels and addresses the problem of fracture permeability and multiple zones of porosity and permeability. Furthermore, the USGS model currently being prepared by Joe Downey utilizes five aquifer zones which includes the Red River, Madison, Pennsylvanian, Minnelusa, and Cretaceous. This multi-layer model showing the relationship between deep aquifer withdrawal and shallow water response is extremely pertinent to the concern expressed for shallow well depletion and/or reduction of surface streams and springs.

The results of the geological investigation prepared by me indicate that the most important parameter, in my opinion, for the movement of fluids in the Madison aquifer system and associated aquifer systems if fracture permeablity. The data indicate the fractures permit vertical communication between aquifer systems. This is substantiated by geochemical and geothermal data. The importance of this concept applies to the results of deep pumping effects on shallow water well fields and surface streams. For instance, the Woodward-Clyde model shows several hundred feet of depletion of potentiometric head in the overlying Pennsylvanian and lower Cretaceous sediments may occur from pumping the ETSI well fields. The Woodward-Clyde model does not give much consideration to vertical communication along fracture zones, so that depletion of heads in the overlying units may be even greater than suggested by their model. Even so, using their figures, an interesting situation may arise that has not been considered in the Environmental Impact Statement. It has been suggested that some of the oil fields that lie along the eastern flank of the Powder River Basin are hydrodynamically trapped (BERG, 1980). If this is true and the heads in the Minnelusa and Lower Cretaceous are lowered, what effect will this have on the trapping mechanism in fields like the Recluse, Bell, Lance Creek, Redbird, etc.?

Finally, I would question the concept of using fresh water to move the coal. The original request for water by ETSI was for brackish water from the Madison Limestone. Original approval from the Wyoming State Engineer was for removal of brackish water from the Madison. What has happened to this concept. There are many areas in Wyoming where sufficient quantities of brackish water may be obtained from deep aquifers. If fresh water is now to be the criteria for moving the coal slurry, then I would suggest that the proposed surface water source from the Oahe reservoir would be the most logical and would cause the least impact on local and regional hydrologic conditions.

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In conclusion, my concern is that the Woodward-Clyde model, which has not taken into account anisotropy, fracture permeability, temperature and density effects on permeability, and vertical communication between aquifer systems, is the basis for approving or diallowing the ETSI pipeline to be constructed. Hydrologic models are notorious for the many variables that can be manipulated so that the model will fit a potentiometric surface. It is possible to end up with a model that fits a specific data set but the results will be unpredictable in any other circumstance because the geological data used in the model are inconsistant with the real world. In Volume II of the final issue of the Environmental Impact Study, hundreds of pages of text have been presented in which experts do not agree on the variables that were put into the Woodward-Clyde model. These include such items as: amount of recharge to the aquifer; discharge from springs; permeability values; rate of movement of fluids; leakage versus nonleakage; water quality; and the list goes on. In my opinion, because the geological conditions in the area are so complex; that is consists of multiple fracture blocks, no geological model will accurately predict what will happen on a local basis or in a selected area. Furthermore, I feel that the only way to accurately calibrate a digital model for this area would be to conduct a large volume, lengthy(three months or greater) withdrawal test. Monitor wells should be located based on geological data as well as previously prepared digital models. Although this procedure would be costly, it would probably save time and money in the long run and produce a final answer to the question of drawdown distribution and effects.

Respectfully submitted,
Donald L Brown
Donald L. Brown, President

Berg, R.R., 1980, Exploration for sandstone stratigraphic traps, Rocky Mountain Association of Geologists School, Denver Co., August 9, 1980.

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August 10, 1981

SUBJECT: The Bureau of Land Management's Discussion of Final Environmental Impact Statements on the Energy Transportation Systems, Inc. Coal Slurry Pipeline Transportation Project

The final draft of the ETSI Environmental Impact Statement contains replies and rebuttals to questions raised during testimony by concerned citizens, agencies, business, and local governments. I have only had time to review the replies to my testimony rather than all of the replies to other critics in the section entitled, "Water Resources - WCC Model."

The objections I raised at the hearing were not resolved nor corrected in the final version of the EIS. There is still a basic difference in the conclusions of the USGS model of the area being prepared by Joe Downey and the model which was used by Woodward-Clyde. The model being prepared by the USGS is based on five years of input rather than six months; it utilizes detailed as well as regional geological models; and addresses the problem of fracture permeability and multiple zones of porosity and permeability. Furthermore, the USGS model currently being run by Joe Downey utilizes five aquifer zones which include Red River, Madison, Pennsylvanian, Minnelusa, and Cretaceous. This multi-layer model showing the relationship between deep aquifer withdrawal and shallow aquifer response is extremely pertinent to the concern expressed for shallow well depletion and/or reduction of surface stream flows. The USGS model has some basic differences which have been alluded to by the ETSI report but have not been resolved; such as, variable permeability based on temperature, density, and fracture patterns, whereas the Woodward-Clyde model utilizes a permeability that does not take into account temperatures and density variations. Rather than discuss the response of the EIS statement to all the critics because of time limitations, I must limit my remarks to ETSI's responses to my criticisms.

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P. 6-16 Comment 2: Why USGS Madison Formation Study Was Not in Use in the EIS

It is true the USGS will not be scheduled to release the Madison study until late 1981 or early 1982. This is due to the process of checks and bounds put on any public information and subsequent publications by the USGS in order to insure a completely unbiased professional report. It is not apparent to me that the timing of the Slurry Pipeline is so critical that the results of a five-year, multi-million dollar study, which is probably the most detailed multi-disciplined hydrologic evaluation of the Madison aquifer to ever be attempted, cannot be utilized.

P. 6-24 Comments 11, 12, and 13: Fracture Related Porosity and Permeability

The EIS statement acknowledges that the Madison aquifer reacts to fracture porosity and permeability and contains well developed zones of secondary porosity and permeability; but it has still ignored the problem in their model. They state that only the Black Hills monocline and Fanny Peak lineament create anisotropies in the system. The field data, including hydraulic, geochemical, and geothermal data, most emphatically does not support this conclusion. Furthermore, the direction of what little anisotrophy the Woodward-Clyde model incorporated is out of phase by 90 degrees with that of the USGS model.

The EIS statement acknowledges that the fracture patterns are predictable (p. 6-26). Their statement that "predictable geologic patterns do not necessarily lead to direct correlations of hydraulic properties" is confusing. Subsurface geological studies done for the Madison project indicate a direct relationship between the lineaments (fracture zones) and karst topography. The karst areas were found on the elevated sides of paleo structures, while on the depressed sides, areas of evaporites and non-reservoir rock exist. The karst area is not an ubiquitous karst at the top of the Mississippian as used in the Woodward-Clyde model. It only appears as a "halo effect" on the elevated sides of the paleo structures.

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drawn is that Madison water is moving vertically up to the Minnelusa formation. Work I am currently doing for a private concern is substantiating these lineament zones with geophysics. If the drawdown, as predicted by the Woodward-Clyde model, does occur in the overlying Pennsylvanian and lower Cretaceous sediments, then the concern still exists that hydrodynamic well traps in oil fields may be breached due to pumping of these water well fields.

In summary, although the EIS statement acknowledges the comments and criticisms of many people and organizations, I feel very little has been changed from the original report. Infinite hydrologic models can be constructed, but due to the complex geology, the actual results of withdrawal of water won't be known until the well field is actually pumped. My suggestion is that a large volume, three-month withdrawal test be conducted. Monitor wells should be placed based on geologic and model input. Although this procedure would be costly, it would probably save time, money, and produce a final answer to the question of drawdown distribution and shape.

Sincerely,

Donald L Brown

Donald L. Brown
President

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P. 6-27 Comment 16: Unavailable Geological Data from the USGS Madison Study

At the time the Woodward-Clyde study requested geologic information from me, it had not been approved for release by the USGS, and my comments as far as the timing of the ETSI and the available reports are the same as in Section 2.

P. 6-28 Comment 17: Structure and Tectonic Effects in the Model

The EIS statement says that structure and tectonics effects were taken into account in the model. Support for this claim consists of the Woodward-Clyde model using the Black Hills monocline, the Fanny Peak lineament, and the Lake Basin fault zone. The use of three structure features to show control of flow of ground water does not constitute utilization of the structures and tectonic effects of the area because there exists at least ten times that many structural controls within the area.

P. 6-62 Comment 81: Effects on Oil Fields

The EIS statement summarily dismisses the prospect of interfering with oil fields that are hydrodynamically trapped, with the comment that "present data does not suggest that vertical communication along fracture zones is important on a regional scale." On the contrary, the present data demands that vertical communication along fracture zones on a regional scale exist. Geothermal studies conducted by myself show that abnormally high geothermal gradients exist at the intersection of major lineament zones, suggesting vertical rise of water headed from a deep source. The report by Head and Merkle (1976) and Head, Kolty, and Knottic (1979) all show relationships between regional lineaments and vertical communication of fluids. Head and Merkle shows wells drilled along lineament zones have the same water quality in both the Minnelusa and Madison formations. Wells that are not on a lineament zone and in the immediate vicinity show a different water quality in the Madison and Minnelusa formations. The only conclusion that can be

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December 15, 1980

TO: Department of Interior
Bureau of Land Management

FROM: Donald L. Brown, President
Brown Geotectonics

SUBJECT: Testimony Regarding the Environmental Impact Statement Prepared by Woodward-Clyde Consultants on the Proposed ETSE Well Fields in Niobrara and Crook Counties, Wyoming

This statement is being presented to indicate concern regarding the conclusions of the "Well Field Hydrology Technical Report" prepared by Woodward-Clyde Consultants for the U.S. Department of the Interior, Bureau of Land Management. Considering the limited time frame and the limited information available to Woodward-Clyde, they did an admirable analysis. However, it is my concern that the conclusions regarding regional drawdowns, vertical communication between formations, and influences on surface streams and springs may be based on erroneous geological input. Hydrologic models are notorious for many variables that can be manipulated so the model will fit a potentiometric surface. It is then possible to end up with a model that fits a certain data set, but the results will be unpredictable in any other circumstance because the geologic data are not consistent with the real world.

The mathematical manipulations used in the various models presented in the Woodward-Clyde report are standard and, for the most part, not subject to criticism. However, the geologic impute that determined the restraints and constrictions that were placed on the model is subject to criticism.

In 1976, an intensive geologic study was begun by the U.S. Geological Survey, Water Resources Division, to determine the subsurface geology and its relation to potential reservoir rocks for eastern Wyoming, eastern Montana, and most of North and South Dakota. The project, called the Madison Limestone Project, was under the direction of E.M. Cushing. Geology, geophysics, geochemistry, and hydrologic modeling were used in a multi-discipline approach. The results of these multi-discipline reports are currently in review, and the interpretations of the investigators were not available to Woodward-Clyde at the time their report was compiled.

I was in charge of the subsurface geologic investigations on the Madison Project, and it is apparent from examination of the Woodward-Clyde report that most of the Madison Project conclusions of the geology and tectonic analysis were not considered in the Woodward-Clyde models. There have been several excellent studies on the regional geology of the Northern Great Plains area (Andrichuck, (1955) and Rose, (1976), to name two of the more extensive); but I believe it is a fair statement to say no previous study has been as fully staffed, did as detailed work for so many various disciplines, or was as well funded as the Madison Limestone Project. Three test wells, ranging in depth from about 4,350 feet (Blankennagel, 1977) to about 9,400 feet (Brown, 1977) were drilled to test geologic concepts. Furthermore, the geologic suppositions that predicated the drilling of the wells were substantiated in all cases. The crucial aspect of this statement is that the geology, based on a wrench-fault tectonic analysis, is predictable rather than a random system as is suggested in the Woodward-Clyde report.

Some of the more important conclusions concerning my work on the Madison Limestone Project which are being confirmed by my work in petroleum and hydrologic consulting are as follows: (1). The structural style of deformation that exhibits the most control over Paleozoic sedimentation is that of horizontal compression related to wrench-fault tectonics; (2). Faulting and shear zone development was concurrent with deposition and strongly influenced sedimentation and facies; and (3). Because the structural style of deformation is that of wrench-fault tectonics, the fracture directions are predictable rather than random, as stated by Woodward-Clyde.

McKinstry (1953), Moody and Hill (1956), and Wilcox, et al, (1973) among others, have shown that certain geometric relations will hold true in fractures related to horizontal compression; i.e., synthetic fracture sets will develop at an angle of 10 to 30 degrees to the principal shear zone; extensional fractures will develop parallel to the direction of maximum compressive stress; antithetic fracture sets will develop from 70 to 90 degrees to the principal shear zone; and a complementary shear zone may develop at 90 degrees to the principal shear zone. My analysis of the structure in this region, while working on the Madison Limestone Project and while doing oil and gas exploration, indicates that the direction of maximum compressive stress during Paleozoic sedimentation was N.14E. The direction of the principal shear zones are about N.56E. This means that synthetic fracture development would range from N.26E. to N.46E; antithetic fractures would range from N.14W. to N.28W; and extensional fracture would be about N.14E. To further complicate the geology, the direction of maximum compressive stress changed from about north-south during the Paleozoic time to about east-west during the Laramide orogeny. Anna (oral communication, 1980) gives the direction for maximum compressive stress for the Laramide orogeny as N.85E. This means, with a principal shear zone of about N.40E., the synthetic fracture sets would range from approximately N.50E. to N.70E.; extensional fractures would be approximately N.85E.; and antithetic fractures would range from approximately N.70W. to N.50W. Northeasterly fractures of the Paleozoic age tend to be reinforced by the Laramide tectonics.

The above mentioned lineament (fracture) directions are currently being used in a model being prepared by Joe Downey of the U.S. Geological Survey for the Madison Limestone Project model (oral communication, 1980). Flow directions in that model tend to show stronger alignment along the northeasterly lineaments (Downey, oral communication, 1980) than along northwesterly lineaments. This may indicate that the northeasterly lineaments may tend to be conduits to fluids rather than barriers to flow. Local conditions may change these relations, of course, but this anisotropy is different than that shown in the Woodward-Clyde models.

Many of the conclusions of the geologic section of the Madison Project report, as written by me, are in conflict with previously published geologic reports and are, therefore, in conflict with the geologic assumptions used by Woodward-Clyde. For example, the concept of a ubiquitous karst zone being present in the top of the Madison Limestone is refuted in the geology report. The Madison study indicated karst zones were present along the elevated sides of paleo-structural blocks that were exposed to subaerial erosion, whereas the depressed sides of the blocks contained bedded evaporite deposits that have no porosity nor permeability. Furthermore, many of the karst areas are collapsed and filled with clay, so they are, for all practical purposes, impermeable. Only in areas where paleo-karst zones were uplifted during the Laramide orogeny and where ground water has removed the clay infilling are there cave development or fracture derived solution channels present. A good example of this occurs in the Gillette well field in Crook County, Wyoming. Woodward-Clyde state in their report that of eight wells drilled in the field, only two wells showed evidence of bit drop or loss of circulation that would indicate open solution channels present. Although I have not seen a map of the well field, I would speculate that the two wells which showed solution effects are along an azimuth consistent with the fracture directions predicted by the tectonic analysis of the Madison report.

A second area of concern with the Woodward-Clyde model is that little consideration has been given to fracture permeability. In my opinion, fracture (secondary) related porosity and permeability in the carbonate reservoir rocks of the area has a significantly greater influence on the movement of water than intercrystalline (primary) matrix porosity and permeability. From personal communication with many oil companies working the Williston and Powder River basins, it is apparent that they are arriving at the same conclusion. Two examples of recently discovered oil fields in which the Madison Limestone is treated as a fractured reservoir are the Stanley field in North Dakota and the Mondak field in Montana and North Dakota (Byrd, 1978).

The Woodward-Clyde model is based on interconnected karst zones and matrix porosity because it is easier to handle in the model. The model is less sensitive to transmissivity changes than it is to changes in storage coefficient. The storage coefficient of a fracture zone or solution opening along a fracture zone is practically infinite compared to the storage coefficient of a matrix porosity reservoir. To the best of my knowledge, there are no reliable digital or analog models that can handle regional fractured reservoirs. The math for models are for isotropic, homogenous media, not fractured or anisotropic media. Woodward-Clyde state in their report that the aerial distribution of high transmissivity zones can significantly affect computed drawdowns and that the exact areal distribution of the zones could not be determined. Their model smooths out the drawdowns so that regionally the model may closely simulate observed data, but wells along a zone of high transmissivity may vary considerably from that predicted by the model. This is one more instance in which local geological knowledge must be put into a model. Although geologic reports of the various well field sites are presented in the report, it is not apparent to me that the structure and tectonic effects were taken into account in the model.

Regional lineament maps prepared by M.E. Cooley (1980) of the Water Resources Division show excellent correlatión between lineaments observed using Landsat imagery and the fracture directions predicted by the geological analysis for the Madison Project. Cooley's maps also show high density of northeast and northwest trending linear features around the area of the well fields modeled in the Woodward-Clyde report.

There are other basic differences between the Woodward-Clyde model and the U.S. Geological Survey model; i.e., temperature corrections and the use of the total Madison Limestone rather than just the upper zone. However, in both models, one of the more important aspects is that the model tends to average impute parameters and is designed to make regional predictions based on average porosities, average permeabilities, average storage coefficients, average leakage, etc. Node spacing on the models range from six miles to about 32 miles and local conditions may not reflect the predicted regional trends if the local geology is affected by fracturing. The U.S. Geological Survey's model shows significantly more anisotropy to projected drawdowns than that by Woodward-Clyde because regional lithologic trends and fracture trends were used; even the U.S. Geological Survey's model would show more anisotropy if more detailed geology were incorporated into the model.

In conclusion, I would like to reemphasize that digital models are only as good as the information used to simulate the geologic conditions. Although the Woodward-Clyde model may appear to calibrate to regional potentiometric surfaces, it is my contention that the geologic conditions that are used as basic parameters in the model are not in accordance with the geologic conclusions of the Madison Limestone Project. Local geologic conditions, especially structural geology and fracture orientations, should be incorporated into any model simulating drawdown.

Finally, I don't believe enough consideration has been given to vertical communication along fractured zones. If leakage and vertical communication is greater than anticipated so that depletion of heads in the overlying Pennsylvanian and Lower Cretaceous sediments occurs from Madison pumping, then an interesting situation may arise that has not been considered. It has been suggested that some of the oil fields along the eastern flank of the Powder River Basin are hydrodynamically trapped (Berg, 1980). If this is true and the heads in the Minnelusa and Lower Cretaceous are lowered, what effects will this have on the trapping conditions in fields like the Recluse and Bell Creek, etc.?

I respectfully urge that no action be taken on approval of this Environmental Impact Statement until the results of the U.S. Geological Survey's Madison Project geology and digital model studies are available.

Donald L Brown

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DLB:ba

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TO: THE UNITED STATES SENATE SUB-COMMITTEE ON WATER RESOURCES

SUBJECT: The Use of Water from the Madison Aquifer in the Coal Slurry Pipeline

I feel that the long-term use of the Madison aquifer as needed in ETSI's coal slurry pipeline would cause irreparable damage to this area and its economy.

20,200 acre feet of water a year (5.6 billion gallons) for the fifty to seventy-five year life of the pipeline would cause too great an impact. The 1974 Wyoming Legislature was told that the Madison Formation water was "brackish" and unfit for human or animal use. It is not. It is the municipal water supply for Gillette, Sundance, Newcastle, Upton, and Osage, Wyoming. The legislature was told also that the Madison aquifer is isolated from the other aquifers of shallower formations in use by ranchers and farmers. That is untrue, also. The drawdown of the Minnelusa and Inyan Kara aquifers would be almost as great as that of the Madison. That drawdown is of great concern to ranchers and farmers who depend upon those wells for water in this semi-arid area.

Thus, agriculture in a wide-spread area of Wyoming, South Dakota, Nebraska, and Montana would be affected.

Another principal concern is for the Black Hills. The Madison Formation outcrops in a 480 square mile area of the Black Hills providing water for the seeps, springs, and streams that maintain the growth of pine forests; stands of aspen, spruce, and birch; and other vegetation that our low amount of precipitation could not support. The drawdown of the ground water, seeps, and springs of the Madison aquifer in the Black Hills would be devastating to a wide area. The beauty of this region is very attractive to vacationers and makes it an important tourist area.

Since agriculture, tourism, and timber harvesting and processing are the basic industries of a four state area great harm would be done by ETSI's use of the Madison aquifer. I base my figures on the Final Environmental Impact Statement.

Also, since Exxon and Phillips Petroleum are developing the vast sources of lignite with power plants at the mines in the gulf coast states why would the pipeline be neede?

Mrs. Dorothy B. Mahoney
PO Box 85
Hulett, Wyoming 82720

WATER RESOURCES POLICY ISSUES

WEDNESDAY, AUGUST 19, 1981

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Water Resources,
Vancouver, Wash.

The subcommittee met at 9 a.m., in the P.U.C. Building, Hon. James Abdnor presiding.

OPENING STATEMENT OF HON. JAMES ABDNOR, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Senator Abdnor. The subcommittee will come to order. I'm pleased to have all of you here at the final hearing on water resources development issues. We have had a series of hearings throughout the western half of the United States, and they have been very, very interesting and certainly this large turnout today shows a great interest that the people have on the issues that we will be taking up in our Water Resources Subcommittee.

Today we are going to focus on three major issues, water resources and development policy, inland waterway user fees, and port development. Water policy is important, because it provides a framework for addressing other specific water issues. We need to figure out how we can plan and construct the best projects in the least amount of time. We are pleased to have two State witnesses who will address the most difficult problem.

Most of the hearing will focus on port development. The administration has proposed full cost recovery for all construction and maintenance. I know that this proposal will cause hardship for some ports and particularly inland ports. But I also know that we need to deepen at least a few ports and that we have to find a system which will finance these port dredgings and define project priorities.

I hope that you all, as experts in these issues, can help us develop such legislation. I'm particularly interested in suggestions for non-Federal financing of project construction. I know the Federal Government cannot afford to finance all needed projects. If they are going to be built, someone other than the Federal Government is going to have to help pay for some, if not most, of the cost.

I'm not convinced that the administration proposal, however, is the best approach. I hope we can come up with a better answer, and we welcome your suggestions today. I'm pleased to be here in your beautiful Pacific Northwest with both Senators Gorton and Packwood and also being joined by Congressman Clausen.

Senator Gorton, despite all of his other responsibilities in the Senate has been very, very involved in activities of the Subcommittee on Water Resources. He's one of the most active members we have on the committee, and I certainly rely heavily on his judgment and his views. And, of course, Senator Packwood is chairman of the Commerce Committee, and he's displayed a keen interest in these issues. And some of these issues will affect his committee.

So we really appreciate having these two people here. Congressman Clausen came up from California. He's the ranking minority member of the Public Works Committee. And when I served on that committee, Don was ranking on the Water Resources Subcommittee, extremely knowledgeable and very, very interested in this. And so keeping the two committees thinking alike and going down the road together, here we are very, very happy that he is able to join us today.

I might say Senator Mark Hatfield, who is very interested in the hearings, was unable to be here today, and we are submitting a statement on his behalf. I know he wanted to come. As a matter of fact, I'd like to say at the outset that we originally set up this hearing in Seattle when Senator Gorton first showed an interest. And because of the interest in the Oregon delegation, he consented to move it down here to Vancouver, and I'm sure everyone is very appreciative of that.

[Senator Hatfield's statement follows:]

MARK O. HATFIELD
OREGON

United States Senate
WASHINGTON, D.C.

July 13, 1981

The Honorable James Abdnor
United States Senate
Washington, D. C.

Dear Jim:

I wish to express my appreciation to you for conduct hearings in Vancouver, Washington on water resource development issues.

As you know, the issue of waterway user fees is of great interest to me. On August 3, I introduced the Waterways Transportation Development and Improvement Act of 1981. This legislation was erroneously referred to the Senate Finance Committee, but I have been assured by the Senate Parliamentarian that when the Senate reconvenes in September, it will be re-referred to your Committee by means of a star print. Therefore, I would like to bring the legislation to your attention and ask that you consider this bill, together with others, in light of the effect of the Administration bills on small ports, river ports and waterways.

While I will be unable to be present at the August 19 hearing, I would like to submit written testimony, and I am enclosing a copy of it for the hearing record. I believe that my legislation offers a template which will take into account some of the concerns of the Administration while maintaining the national concern commerce. I fear that the Administration approach, as represented in S.809 and S.810, violates the Constitutional requirement that all duties, imposts and excise taxes must be uniform throughout the United States; no preference should be given by any regulation of commerce or revenue to the ports of one state over those of another. If enacted, the Administration legislation would certainly have a devastating impact on many of the ports of the Northwest.

Again, I appreciate your travelling to the Northwest and am sure that the hearing will be useful to the members of the Committee in considering issues of vital concern to our region.

Warmest regards.

Sincerely,

Mark O. Hatfield
United States Senator

MOH:ti

Enclosure

SENATOR MARK O. HATFIELD

Statement before the Senate Committee on Environment and Public Works
August 19, 1981

Mr. Chairman, I appreciate the willingness of the Committee to travel to the Pacific Northwest for today's hearing. I would like to comment briefly on legislation I recently introduced, S. 1586, the Waterways Development and Transportation Act of 1981. Because this bill was introduced on the last day of the session, it was erroneously referred to the Finance Committee. I have been assured by the Senate Parliamentarian that on the first day following the recess it will be re-referred to your Committee by means of a star print. Therefore, I would like to bring it to your attention and ask that you consider this bill, together with others, in light of the effect of the Administration bills on small ports, river ports and waterways.

The Administration has introduced S. 809 and S. 810, which address the problems of port maintenance and construction and waterway maintenance and construction. While the bills differ in their mechanisms for generating funds, their underlying philosophy is the same. Both would throw the whole burden of maintaining a given port or waterway into that local entity. While this approach has the benefit of simplicity in administration, it ignores the reality of many, many years of federal funding which have built older ports into formidable competitors for the import and export dollar. It also ignores the national effects of placing our ports and waterways on a strictly competitive basis.

Like the rest of the nation's transportation system, ports and waterways are competitive entities which, taken together, provide a necessary service to the people of the United States. The competitive aspects are supplied in abundance by the managers of the many ports. The service aspects, including citizen access to nearby import and export facilities and employment for Americans in port-related industries, have been traditionally recovnized by the federal government through port and waterway appropriations. Under S. 809 and S. 810, a number of changes will probably take place which should concern the Senate both for their effects on Americans living in the Pacific Northwest and for the implications which they contain for many small ports and waterways throughout the nation.

Under the President's bills, the Port of Portland estimates that four to five million tons of international cargo will no longer use the Columbia/Snake River system. Transport of some low-cost commodities such as gravel and dry bulk for export will simply cease in this area. Higher-cost commodities will find it more economicalto use more energy-intensive trucks which can operate on the nation's highways, subsidized by both the federal government and the automobile driver. Many products are bound for export will likely be diverted to Canadian ports, which are free of taxes or fees. Such a situation would have a tremendous economic impact on the Pacific Northwest, meaning as many as 15,000 fewer jobs and $750 million loss to the Pacific Northwest economy, which is already in dismal shape as a result of the depressed housing and lumber industries.

Like S. 809 and 810, my bill would also allow the costs of port and waterways maintenance and improvements to be imposed on the users of the system. However, it would acknowledge the fact that this is a national system by collecting and re-distributing the funds on a national basis through use of a "Waterways Trust Fund". In addition, it would impose the user charges on the real user of the system, the commerce which passes through the ports and waterways, into or out of international trade. I think this system is much more useful and equitable for the United States as a whole.

Another feature is a 50-50 split between the Federal government and the local port entity in the construction of deep-water ports for use in coal exports. While I do feel that, here again, a national system should prevail, I do acknowledge that coal ports have a special purpose. The greatest benefit which will be derived from deep-draft dredging (approximately 55 feet) will go to overseas energy consumers and stockholders of energy companies in the United States. While there will still be a benefit to the American consumer through the infusion of foreign revenue, employment and access to deep-draft channels for other purposes, it will not be on the same scale as the benefits derived from general purpose ports of 45 feet or less. Thus, my bill divides deep-water port construction costs between the local port district and the fund in order to recognize that attenuated national interest.

I would like to urge the Committee to listen to the testimony which is presented today and to ultimately reject teh Administration philosophy that ports and waterways should be on a basis. This is not a new concept It was tried during the Colonial era and rejected by the framers of the Constitution. Thi is evidenced by their determination to give the federal government the responsibility for all international commerce through the Commerce Clause, in the constitutional requirement that all duties, imports and excise taxes must be uniform throughout the United States, and finally, in that no preference should be given by any regulation of commerce or revenue to the ports of one state over those of another. Those are not my words, they will be found in sections 8 and 9 of the U.S. Constitution. I would like to urge the Committee to follow the spirit of the Constitution in discarding this parochial approach to our international commerce and our waterways transportation system.

While I prefer the provisions contained in my bill, I do not claim to be infallible and I can understand the members of this Committee making changes which reflect their more sophisticated knowledge of the situation. However, I believe that I have offered a template which will take into account some Administration concerns while maintaining the national sense of greatness.

Thank you, Mr. Chairman and members of the Committee, for your attention here today. Relevant to my testimony are two attachments which I would like to submit for the Record. They are a copy of my bill and statement, and a copy of a letter I recently wrote to Mr. David Stockman, Director of the Office of Management and Budget.

MARK O. HATFIELD, OREG., CHAIRMAN

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United States Senate
COMMITTEE ON APPROPRIATIONS
WASHINGTON, D.C. 20510

August 14, 1981

Mr David Stockman
Director
Office of Management and Budget
Executive Office Building
Washington, D.C. 20503

Dear Dave:

Recently I introduced a bill which would alter the concept of port and waterway user charges. I understand your desire to let the marketplace determine the viability of the nation's ports and harbors, but as the Senator from a state which could conceivably watch every port on its coast wither and die as a result of the Administration's approach, I simply cannot accept the argument that a pure free market philosophy will be most advantageous for the nation.

However, I am willing to meet the Administration philosophy half-way. I agree with you and the President that services should pay the cost of their own existence wherever possible. I do not consider the operators who move the nation's commerce up and down waterways to be the "waterway user". Instead, I take it a step farther, saying that the purpose behind these waterways is to bring this commerce to market. Therefore, my bill imposes the costs of the nation's ports and waterways onto the commerce which it serves. I have enclosed a copy of my bill, together with statements which I made upon its introduction. I am sure you will perceive this for what it is -- an attempt to compromise the reality of the present situation which is built on years of federal involvement, with the philosophical motives of the new Administration.

When you appeared before the Senate Committee on Environment and Public Works on July 16, you discussed the economic impact of user fees during the course of responding to questions from Senators Abdnor and Gorton. In your prepared statement, you also noted a cost increase for Mississippi River shipments of "about three to nine cents per bushel for grains shipped to New Orleans". You also compared possible costs to the Port of Portland of thirty cents per ton for commerce with a possible cost increase to the Port of Seattle of one cent per ton.

This comparison has concerned me deeply, for I consider the Columbia River a vital shipping link in both the nation's and the State of Oregon's economy. From your statements, you and your staff appear to have made an assessment of the impact of user fees on specific areas. I would greatly appreciate it if you could provide me with an estimate of the effect of the Administration bill on costs for these Columbia River ports: Astoria, Longview, Kalama, St. Helens, Vancouver, Portland, Morrow County, Umatilla, Pasco, Lewiston, and Wheeler County. In addition to the cost per ton estimates you give for all products, I would also appreciate a breakdown in cost per bushel for grain shipments.

I am also troubled by the potential impact of the Administration's proposals on coastal ports in the Pacific Northwest. If possible, I would appreciate data on the effect of the Administration proposals for Operations and Maintenance on these ports: Coos Bay, Reedsport, Florence, Tillamook, and Grays Harbor, Washington.

Thank you very much for taking the time to consider these thoughts. If you or your staff has any questions, please contact me or Tom Maginnis of my staff, or Steve Crow on the Appropriations Committee staff. I will await an answer at your convenience.

Warm personal regards.

Sincerely,

Mark O. Hatfield
United States Senator

MOH/tmr
Enclosure

Senator ABDNOR. And so we do welcome you to this hearing today, and I'm going to call on Senator Gorton for a few remarks.

OPENING STATEMENT OF HON. SLADE GORTON, U.S. SENATOR FROM THE STATE OF WASHINGTON

Senator GORTON. Thank you, Mr. Chairman. I should like to welcome both you and Senator Packwood, to the State of Washington, and to thank you for including the Vancouver-Portland area on your schedule of hearings for the port development and proposed waterway user fee legislation. As a member of the Water Resources Subcommittee, I appreciate having the opportunity to appear at this hearing with you in my home State. I know that the citizens of both Washington and Oregon also appreciate and welcome the opportunity to present testimony here today.

The primary issues we will be discussing, cost recovery and navigational user charges, are of critical importance to the Pacific Northwest. Decisions made by this subcommittee are likely significantly to alter our Nation's water resources program for years to come.

Mr. Chairman, I share the concerns which you have expressed about this proposed administration legislation. Although I support the marketplace philosophy upon which the administration's proposals are based, I have serious reservations about the economic dislocations that could result from the immediate implementation of these proposals. I believe it is necessary for this subcommittee to have a thorough knowledge and understanding of the complicated issues inherent in this legislation.

When David Stockman, the Director of the Office of Management and Budget, testified before our subcommittee in July, I informed him of the divergent viewpoints in the Pacific Northwest toward this legislation due to the differing interests of deep and shallow ports in our region.

I may say Mr. Stockman expressed a certain amount of sympathy with the difficulties this legislation would create for Columbia River ports. Several areas of concern are already apparent. First, fundamentally, what dislocations would occur as a result of its passage? Second, how seriously will agricultural enterprises be impacted? Third, will the immediate ship user fee system have a debilitating affect on certain ports? Fourth, is it fair suddenly to implement such a system after significant capital investments in shore and port facilities have been made based on the traditional involvement of the Federal Government in port and navigational development? And fifth, how would the implementation of these policies affect the costs of other modes of transportation?

On the other hand, of course, is the theory that users should pay for proprietary services of the Federal Government. The combination of these questions and concerns lead me to feel that other approaches, including your own, may be superior to the administration's plan.

Mr. Chairman, these are issues which we need to address. I am sure that our witnesses today will provide us with thoughtful and useful insights to aid in their resolution. Thank you.

Senator ABDNOR. Thank you, Senator. Senator Packwood?

OPENING STATEMENT OF HON. BOB PACKWOOD, U.S. SENATOR FROM THE STATE OF OREGON

Senator PACKWOOD. Mr. Chairman, Senator Gorton, let me doubly express my appreciation to you coming to the Portland-Vancouver area. I'm not a member of this committee. I am chairman of the Commerce Committee, and we have jurisdiction in that committee only over the Coast Guard user fee portion of any suggested maritime user fee issues, but obviously as an Oregon Senator, I'm very concerned about port user fees and other waterway user fees.

We have developed in Oregon over 20 productive ports, some big and some small, some deep-draft, some shallow, some coastal, some river; and they all contribute in their unique ways to a very successful economy. Part of it's commercial, part of it's recreation.

We have spent a great deal of money, some of it port money, some of it State money, some of it private money, building those ports on the assumption that the Federal Government would continue its traditional role in partial support of those ports. And any change that is going to be made suddenly, any pulling of the plug of Federal support would be unfair to literally thousands and perhaps hundreds of thousands of people who have made their own commitments in one way or the other on the assumption that there would be a continuing joint venture.

The Department of Transportation in 1978 was directed to make a study of user fees, and that report is due on September 30 of this year. I have not yet heard what even the preliminary conclusions of that report might be. But I would hope before we take any action, we would at least wait until that report is out and have a chance to review the 3 years of studies that they have made.

I'll say once more in conclusion, any rapid change of the present joint Federal-local partnership would be unfair to every port, every port commissioner, every private investor, every private industry, every employee of all of these ports who have depended so long upon a promise from the Federal Government that the form of partnership that we now know would continue.

Senator ABDNOR. Thank you, Senator. Congressman Clausen?

Again, I point out that Congressman Clausen is probably one of the more knowledgeable people in the field of water, having served on that committee for a long time and being the ranking member.

OPENING STATEMENT OF HON. DON CLAUSEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Congressman CLAUSEN. I hope we have those remarks recorded. I am more than pleased to come to this important section of the United States as a member of the House committee dealing with these matters, and more importantly, to associate myself with the remarks that have been made by these three very distinguished Senators, all of whom I have had the greatest privilege of working with in a number of matters.

Senator Gorton, having just come aboard, has clearly demonstrated a broad understanding and perspective on the legislative process and also the factors relating to legislation and, as has been stated, Jim and I served on the Committee on Public Works together, and I have the privilege of working on aviation matters and other matters with Bob and his newly assigned responsibilities associated with his chairmanship of the important Committee of Commerce.

I find myself in concurrence with what I perceive to be a measure of concern, apprehension as to where we go from here. The issue of port development and inland waterway development, like all of the transportation modes in the country, is fundamental to the economic recovery effort that all of us are working toward.

And so the purpose of this hearing—and there are a number of bills that have been introduced, both in the House and the Senate; and I think that's one of the greatest things about the process that we follow, I mean in terms of the legislative process; that is, it affords people in the field who are going to be impacted by anything in the way of a decision that might be made by the Federal Government, or for that matter, any level of government, to have an opportunity through the public hearing process to provide their input, their expertise and assist us in making the ultimate decisions that must be made.

The question of whether or not there is going to be a systems approach versus the market approach—I thought, Bob, that your point, and earlier this morning when we talked about it at breakfast, with regard to the various types of ports: deep ports, ports that serve some of the smaller communities for both the commercial and recreational requirements and their pursuits—all of these things had to be factored in. And I'm inclined to believe, at least from my own vantage point, that we need to consider these things on the basis, as much as we can, of the systems approach.

I think in far too many instances in transportation system development in the country in the past there's been sort of a grow-like-topsy arrangement, and we have paid the price for the lack of an adequate systems approach. And so it's to that end that I think we need to look beyond just the local interests that are involved. But also, as we expand our international trade, there is a requirement that I think each one of us need to consider, and that is what is the mobilization capability of the Nation as a whole?

And the mobilization means the ability to move people, goods and services, be it the domestic market or to the expanding international market. And more and more we can look to the west coast as an example. More and more we are seeing this development of the economic and the security partnership of the Pacific basin, and we, on the west coast in particular, are now coming into our own, while the east coast has essentially had the dominant influence in the process, because of the trade relationships with Europe.

And the fact of the matter is, I'm sure that everyone in this room understands, that where we are today and where we are going to be in 10 years essentially is going to be in the manner in which we develop our transportation systems on a systems approach that will permit us to meet the international competition and the trade relationships between the countries in the Pacific basin.

One final point on the matter of water policy. I'm rather of the opinion that that which will take place today will be centered around the port development, inland waterways and user fees, and that sort of thing. I'm just going to make this one point. The water policy—the next major crisis in the Nation is going to be the water resources crisis, the impact on the basis of the water supplies of this Nation because of all the demands, all the uses. It certainly is going to require the best of all of us to develop a water management concept consistent with the kind of national water policy that will take into consideration, first and foremost, that in the States themselves there is a strong and traditional view of recognizing and preserving the States' water rights.

But I would submit if the States want to protect and preserve those water rights, they are going to have to have, along with us, the responsibilities to go with water management. And so to that end, Mr. Chairman, I'm more than pleased to be associated with you here today, and I intend to spend more of my time listening than talking. And this will be the longest speech I'll give all day.

Senator PACKWOOD. Mr. Chairman, could I make one request? I've got to leave about 10:30, quarter of 11. Could one of the staff put together all of the statements for me that I could take with me, just a packet when I go?

Chairman ABDNOR. You bet. Senator Gorton?

Senator GORTON. Mr. Chairman, I have a statement here from Congressman Morrison who represents this district, who regrets that he can't be here in person but would like his statement made part of the record.

Chairman **Abdnor**. Thank you. It will be made a part of the record. (See p. 972.)

We have a very impressive list of witnesses today. As a matter of fact, we have three pages of witnesses, and we do want to hear from everyone. It's always difficult to cut people short but if we are going to allow everyone to be heard, I guess we're going to have to do that.

So we are going to ask everyone if you have a prepared statement, I assure you the entire statement will be made a part of the permanent record. We would appreciate it very much if you will summarize your statement, hit the high points and allow us time to ask questions.

From my understanding, our staff has talked to a number of the witnesses as they come before us in panels and told you about our time limitations. So I guess I'll just have to ask that you abide by that policy. We may do a little juggling because some of the witnesses have to leave early and some will come later. So we may not be going exactly according to the witness list.

Congressman **Clausen**. Mr. Chairman, it may be that you have already taken care of it, but I have Senator Hatfield's statement and will that be incorporated into the record at the end of the session?

Senator **Abdnor**. We'll make sure it gets into the record.

The first witness we'll start out with is representatives of both the Governors of Oregon and Washington, Ken Self, who will be representing the Governor of Oregon and Wayne Gentry, who will be representing the Governor of Washington. Could I ask these two gentlemen to come forward? I'm sure you won't mind appearing together since we are talking about State policies here.

STATEMENT OF KEN SELF, REPRESENTING HON. VICTOR ATIYEH, GOVERNOR, STATE OF OREGON

Mr. **Self**. Thank you, Mr. Chairman and members of your committee. I feel honored to be first on the program this morning.

My name is Ken Self, and I am commissioner and the junior past chairman of the Oregon Economic Development Commission in Oregon.

The 61st Oregon Legislative Assembly, by an affirmative vote of 90 percent, passed Senate Joint Memorial 14, memorializing the Congress of the United States not to rush into instituting user charges on the Federal waterways system without adequate study, and I support this memorial absolutely.

It is no exaggeration to say that the Columbia River is Oregon's one critical economic artery. Any activity, any fee, that discourages commerce will harden and choke this artery.

I wish to make only a couple of brief points, but even these will show the importance to Oregon and the Pacific Northwest of riverborne commerce, and the damage that could occur if unwarranted user fees were to be applied to river traffic.

More than one-fourth of the Nation's total wheat exports go through Portland. Virtually all of Oregon's international trade and

Idaho's and much of Washington's goes through Columbia River ports.

The largest port in the Pacific Northwest, Portland, is located on the Columbia River, as are many of the fastest growing ports in the Nation, both in tonnage and in dollar value of cargoes. And I should mention that Oregon has one other important port, and that's Coos Bay, primarily involved in the export of wood and wood products.

Approximately 1 out of every 8 jobs in Portland and the lower Columbia River area is related to port activity. In short, the Columbia River and its commercial traffic are absolutely essential to economic health not only of Portland, not only of Oregon, but of the entire area drained by the Columbia and its tributaries.

Fees or user charges imposed on river traffic would ultimately be paid by all Americans. I guess it's a matter of how you apply these costs.

Freight now carried by barges would be carried by more expensive and less fuel efficient means of transport, and some cargoes would be lost to lower priced, government subsidized Canadian shipping through the Port of Vancouver.

The Pacific Northwest already sees its forest products industry, the backbone of its economy, devastated by high interest rates imposed on it from outside the region. This is not the time to add to the area's burdens with more economic woes dictated from outside.

I am not alone in urging caution and restraint in levying charges on waterborne commerce. The Oregon Public Ports Association, representing the 23 municipal ports in the State of Oregon, have gone on record supporting Senator Hatfield's Senate Bill 1586, Waterways Transportation Development and Improvement Act of 1981. The ports division, Oregon Economic Development Department, supports this proposal accordingly.

The Governor's advisory committee for maritime affairs, staffed by the department of economic development, has not had ample time to review the proposed legislation to this date. The committee has a meeting scheduled tomorrow, August 20, to discuss the proposed legislation.

I appreciate the opportunity to appear before you today.

[An attachment to Mr. Self's statement follows:]

[From the Oregon Legislative Assembly—1981 Session]

SENATE JOINT MEMORIAL 14

Sponsored by Committee on Trade and Economic Development (at the request of Senator Richard Bullock)

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure as introduced.

Memorializes the Congress of the United States not to include user fees in proposed legislation affecting ports in this state.

Further memorializes the Congress of the United States, if user fees are adopted, to limit their impact on existing ports and maritime facilities.

SENATE JOINT MEMORIAL 14

To the Honorable Senate and House of Representatives of the United States of America, in Congress assembled:

We, your memorialists, the Sixty-first Legislative Assembly of the State of Oregon, in legislative session assembled, most respectfully represent as follows:

Whereas the United States economy is dependent upon domestic and international trade; and

Whereas the waterborne commerce plays a dominant role in United States foreign trade; and

Whereas the United States ports represent a definable industry which directly employs over 1 million persons; and

Whereas the Federal Government collects over $6 billion annually in customs duties at United States seaports; and

Whereas the Congress is presently discussing legislation involving shallow-draft and deep-draft user charges; and

Whereas user charge legislation must be developed with far better knowledge about the impacts than is available now, including the results of the Section 205 Study and additional studies of the impact of proposed legislation on the port system, on the communities which operate port facilities, on the overall transportation system of the United States and on the national economy; and

Whereas the primary objective of any transportation or port development legislation should be to improve the nation's transportation system and to improve our position in world markets; now, therefore,

Be It Resolved by the Legislative Assembly of the State of Oregon:

(1) That the Congress of the United States is memorialized, if any legislation relating to maritime transportation or port development is enacted, to adopt legislation that shall: (a) Maintain a vigorous, competitive transportation system; (b) Maintain the existing maritime transportation as part of the federal waterways system with charges administered by the Federal Government; (c) Minimize inflation, economic dislocation and unnecessary increases in fuel consumption; (d) Minimize the impact on United States competitiveness in world markets; (e) Minimize shift of cargo to Canada or other foreign ports; and (f) Minimize disruption to the relative competitive position of ports.

(2) That the Congress of the United States is further memorialized, in adopting any legislation authorizing user charges, to require that user charges: (a) Apply only to new construction beyond existing system; (b) Be imposed on a partial cost recovery basis and that the level of partial recovery be determined by the results of the studies of the impact of user charges on the national economy; (c) Be assessed on a uniform basis; (d) Be phased in over a period of years; and (e) Be subject to further study with regard to need, desirability and alternatives.

(3) A copy of this memorial shall be sent to the President of the United States and to each member of the Oregon Congressional Delegation.

Senator ABDNOR. Thank you, Mr. Self. We'll keep the record open for about 2 weeks after today, to allow you time to submit that additional testimony on behalf of your group.

Mr. Gentry?

STATEMENT OF WAYNE GENTRY, REPRESENTING HON. JOHN SPELLMAN, GOVERNOR, STATE OF WASHINGTON

Mr. GENTRY. Mr. Chairman, Governor Spellman wishes to extend his best wishes to you and the committee. He has to be in Spokane and regrets he cannot be here to testify. I will paraphrase his testimony.

Three main points. One has already been mentioned by the Congressman.

Section 205 study, which the Governor believes will be preferably left til the study is complete before the recommendations are made.

Second, the Governor has four options—which he feels that fees are not necessary, and if they are, he would recommend these four options:

No. 1, continue the present 100-percent Federal funding of maintenance and operation and development of waterways 45 feet and under.

No. 2, for those facilities and programs for depths greater than 45 feet, the construction, operation, and maintenance should be financed with some degree of local participation, say, 40 to 60 or 50 to 50.

No. 3, if, however, local participation is to be required, then some method should be found to let ports acquire that money without loss of the competitive ability or driving cargo to ports outside the United States.

No. 4, if, in the final analysis, a cost recovery fee is determined to be necessary to maintain and improve those waterways under 45 feet in depth, then cost recovery programs should be implemented on a uniform basis.

No. 3, of this testimony refers to a subject already covered somewhat in that if cost recovery fees are enacted, the effect may be to divert cargoes, both inbound and outbound, to ports in Canada and Mexico, certainly not a situation encouraging foreign trade.

Third, if the administration's goal is to strengthen our military posture, then it surely has contemplated the effect closing of certain waterways will have on the ability of moving military goods through the existing port system.

And with that summary, Mr. Chairman, I will conclude the Governor's statement.

Senator ABDNOR. Thank you, Mr. Gentry. We appreciate the testimony of both of you gentlemen on behalf of your Governors. I guess most of the questions we have will probably be addressed to both of you gentlemen.

Do you believe that some kind of port deepening should be financed by someone other than the Federal Government or do you think it has to be the Federal Government?

Would you care to give us your thoughts on that, Mr. Self?

Mr. SELF. Well, there's certain costs involved such as dredging operations which benefit a lot of people and a lot of differing interests. In the deeper channels for deep water ports, yes, I would at least look for a way to share those costs.

Senator ABDNOR. I guess from our committee hearings, it's become very apparent that there's many, many citizens up and down the coasts all around the United States that are looking for some deepening of their ports, and the costs become overwhelming. And this is where some of the problems arise that we are talking about.

As a matter of fact, it's amazing how many ports see themselves as coal ports, requiring deep ports and dredging. We are just trying to figure out what the best way is to approach this problem, and that's why we asked the question that way.

Mr. Gentry, do you have some thought on deeper ports?

Mr. GENTRY. The Governor expressed his four options, and undoubtedly the committee, and the administration, however they resolve the issue locally, will not be a disruption of inland ports and waterway ports.

Senator ABDNOR. Fine. I know, Mr. Gentry and Mr. Self, you, of course, endorse Senator Hatfield's bill. We are hearing rumors and comments that it violates the GATT agreements, and I'm no authority on that. But has your legal staff or any people addressed that particular problem, how it will affect the GATT agreement?

Mr. SELF. We haven't had an opportunity to make an in-depth study on that proposal. We will be working on it, in fact, tomorrow.

Senator ABDNOR. I appreciate that.

Mr. SELF. So we'll try and answer your question.

Senator ABDNOR. Have you looked at that, Mr. Gentry?

Mr. GENTRY. The Governor's statement which I did not read, article I, section 9, states:

> No preference shall be given by any regulation of Commerce or Revenue to the ports of one State over those of another.

Senator GORTON. This question, in a sense, is for both of you. It's obvious and understandable that each of you prefer to retain the present system of financing both port development, operations, and maintenance. The administration, on the other hand, has taken the position, which is not an entirely new position—it's a position which has been growing in strength over a number of years—that costs for ports should be allocated to a far greater extent to those particular ports or the commerce serving of those ports.

We now are faced with the demands for port improvement which vastly exceed the amount that Congress can ever be expected to appropriate, not only for operations and maintenance, but particularly for port improvements themselves. All of this is further complicated by the fact that a significant number of major ports in the United States seem quite willing to pay at least a large portion of the improvements to those ports and even operations and maintenance. In some cases, they have testified to us that they would pay all of the improvement costs of a particular port.

Faced with that kind of volunteering activity on the part of many other ports, it's going to be very, very difficult for Congress to ignore that request and continue the decisions it has in the past at anything like a level which would provide for appropriate improvements.

Now, given this reality, can you come up with a system or a set of proposals or pack of proposals which would recognize the growing demand for some kind of significant user fee legislation but which would still protect the highly legitimate interest of areas in which full cost recovery would be prohibitively expensive and very damaging, such as the Columbia River?

Granted, we understand what you want if you had your absolute druthers. If you're not going to get that, where are you willing to go?

Mr. GENTRY. Governor Spellman suggests 40-60 or 50-50 as option two in his program. I'm sure that the other conditional testimony will be forthcoming today. There will be ways in which a suggestion will be made to the committee on which this can be done. We hope, also, however, that there will be—however it's handled, ultimately that there will be continued competition and that ports will not be placed in a noncompetitive position.

Senator GORTON. Do you associate yourselves, on behalf of Oregon, with Governor Spellman's second and third-level proposals?

Mr. **Gentry**. On behalf of Washington? I can't speak for Oregon.

Senator **Gorton**. I'm sorry. Would you take a similar position?

Mr. **Self**. Yes; traditionally the Columbia River system has served, not only the port of Portland, but the inland exports of wheat. It provides transportation for a large segment of the whole Northwest.

Senator **Gorton**. There is a distinct difference between operations and maintenance and the construction of new facilities, and we could very easily have a different policy.

Mr. **Self**. So in my opinion, you have to look at the economics of the problem at hand. Coal, for instance, is altogether different than wheat. More people involved. In some respects, even larger. Larger export in dollars and larger expenditures from it. It not only benefits Oregon, the Northwest, and the West, but the Nation as a whole.

So in my opinion, we need to look at who benefits from the export or the import, whatever it might be, and on that basis decide who ought to contribute. I agree with Washington it should be a joint program. I think the private sector will step up their share of the burden.

Mr. **Packwood**. No questions, Mr. Chairman.

Congressman **Clausen**. I would just ask one basic question, because I think the Governor's statement and his references to the Constitution—and I'll read it:

> No preference shall be given by any regulation of Commerce or Revenue to the ports of one state over those of another.

We are wrestling with the problem of development policy, and within the framework of that policy, we are trying to identify what the role of the Federal Government should be, what the role of the State should be. Then within the framework of the State, you have to take into account oftentimes local responses. It may very well be that you want to elaborate on this, but I wonder if both of you, coming from the two States, could take some time to spell out in detailed terms what you think the role of the Federal Government should be, the role of the State and your local project sponsors and then submit that for the record.

This would be very significant in helping us to sort out who is to be responsible for what. In the 19 years I've been in the Congress, we find that everybody's for everything as long as somebody else pays for it. We have been dealing far too long with that kind of a budget hypocrisy. Everyone says, "Cut your budget, but leave mine alone," and we find ourselves in this dilemma.

So I think the time has come, if the States want to assume their rights, there have got to be responsibilities. I'd like to have those defined. So you take the time, both of you, go back to your Governors, pull in all the staff, and say, "This is the road the State ought to be forming, and this is what the Federal Government's role ought to be."

Senator **Abdnor**. Congressman, to that I'd just like to say the feds have given the ports authority to implement user fees, and that's in much of our legislation, and our legal people say it's not a violation of the Constitution.

Senator **Gorton**. I'd simply like to second that, this particular point in Mr. Gentry and Governor Spellman's submission. While any kind of challenge can, of course, be made in the courts to such a proposal, it seems to me personally very unlikely that a user fee system directed at the actual costs of maintaining particular ports would be found to be unconstitutional.

That's quite different from saying whether it's desirable to go to this system or not. But the Constitution is not likely to protect the ports from a change in the present system.

Senator **Abdnor**. We have to move on, but I've got to ask one other question here.

Let's say we ended up with a user fee for ports. Would you assess all ships coming in evenly even though some need the deepwater seaport, or would you spread it out over all vessels, or would you assess those that have to have deep ports? Have you any thought of that at all?

Mr. **Self**. You're asking all of the right questions. I say that, first, you need to take a look at the economic advantage of that facility to the Nation as a whole and to the region. Certainly that part of it should be supported on a broad basis.

Senator **Abdnor**. You could bring the vessels to other ports, though, if they had to pay part of the costs if there's one that didn't have that overhead.

Mr. **Self**. That's right.

Senator **Abdnor**. Unless you had some even fees for all ports. Thank you very much, gentlemen, for your appearance here today.

We have two members of the Washington State Legislature with us. We have Senator J. T. Quigg and Representative Carol Monohon of Washington. Are they here?

Senator Quigg, we are extremely happy to have you with us. I'm sure you are wrestling with the same questions, same problems we are down in Washington, and we are certainly looking forward to your testimony and Carol Monohon's.

Go right ahead.

STATEMENT OF HON. J. T. QUIGG, WASHINGTON STATE SENATE

Senator **Quigg**. Mr. Chairman, members of the committee, I'm Senator J. T., Quigg, and I represent the 19th Legislative District of the State of Washington. The 19th district includes Wahkiakum County ports No. 1 and 2, the Ports of Chinook, Ilwaco, Peninsula, Willapa, Grays Harbor, and Longview. These ports serve the forest products, recreation and fishing industries that are the major areas of the district's economy.

Thanks to the Jones Act, cedar log export restrictions, inflation and Federal Reserve Board high interest rates and Federal judicial decisions on Indian fishing treaty claims, many of my 19th district constituents are suffering extreme economic hardships. Estimates of spot unemployment exceed 30 percent.

To impose waterway user or commodity fees on the ports that serve the already depressed economy of the 19th district by October 1, 1981 would only worsen the district's economic woes.

There are probably some costs of the waterway construction and maintenance and operation budgets that lend themselves to user fees while other costs more heavily benefit the national good and should be funded by the Federal Government. However, the immediate imposition of a hastily conceived user fee plan coupled with the depressed economy of the 19th district would hurt both local and national interests.

The 19th district and the rest of the Nation depend on domestic and international trade. The administration's economic recovery plan depends on free flowing trade and commerce and that flow of trade and commerce depends on efficient water transportation.

So, as you deliberate on the issue of user fees, please remember that the economy will not recover if our waterways are filled with sand or ill-conceived user fees.

Representative Monohon, you're next.

STATEMENT OF HON. CAROL MONOHON, WASHINGTON STATE LEGISLATURE

Ms. MONOHON. Honorable Senators, Members of Congress, committee staff and guests, I am Carol Monohon, Washington State Representative, also from the 19th Legislative District. I reside in Raymond, Wash.

The administration's proposals in Congress seek to shift the cost of constructing, maintaining and operating deep-water channels and shallow-draft waterways from the people of the United States (who all benefit from them) to the individual port or other local entity in which those waterways or channels are located.

In addition, the various legislative proposals on the subject address a system of user fees that is supposed to provide the local entity with funds sufficient to pay the Government for the construction, operation and maintenance of the waterways or channels. The system most frequently spoken of would establish a fee upon the vessels of all kinds that call upon the port concerned and charge them for all the work that has been done.

Does anybody suppose, in the final analysis, that this will save the American public any significant amount of money? At the present time, through Federal financing of the systems involved, the taxpaying public pays a very modest fee each year for such waterway and channel development. What will it pay in other fees and costs if these legislative proposals pass?

OMB Director, David Stockman, has personally testified before this committee that with this system in place, waterway and port traffic will have 12 percent less growth in the next 10 years than it would have had. Growth of many commodities in that period will be 3 percent instead of the projected 19 percent, according to Mr. Stockman. Who pays for those losses?

Mr. Stockman has also testified that, "We do not want to be disruptive to the Nation's trading patterns, at least in the short term." Does such a statement mean that they expect to be disruptive in the long term? It is my belief that it most certainly would be disruptive, and it would not take very long. Ask any farmer how disruptive a 3- to 9-cent per bushel increase in wheat delivery costs would be.

User fees on vessels will cost everybody more money for the freight on imported commodities. If this legislation resulted in closing a number of ports, which is entirely possible shipping costs of imports to many areas of the Nation could be significantly higher. So, it is a good question: Which costs the American public more, the system we have at present or the proposed system? A lot of facts about the impacts of this legislation may well surface when the Governor's study of such impacts is completed and released. We can hope nothing is done until that study is completed, made public and well reviewed.

If the proposed program is put into effect, many ports will not be able to afford it, but OMB officials have said that the administration has no interest in compromising. Those same officials acknowledge that the proposal will be harmful to a number of ports, but they also said, "Maybe they shouldn't have been ports in the first place." Well, the ports and the economy in my district can be harmed by this proposal. At least one has been a working, aggressive coastal export facility for nearly a hundred years.

Some of the ports of my district are on the Columbia River and are vital to the fishing industry. Without them in place, with their channels, the economic dislocation would be very severe.

Millions and millions of dollars worth of shoreside facilities were paid for by the local people and matched with channels provided by Federal participation to make those ports an integral part of our Nation's marine transportation system. That Congress and the administration could even think of diminishing such a system causes me a good deal of alarm.

If there had not been Federal participatory financing of our major highways, railways, airports, seaports and waterways, we would not have the transportation system that the country now has in place.

Thank you.

Senator ABDNOR. Thank you, Representative Monohon. We appreciate that. We are all aware of that 205 study. It's going to be very important to all of us.

Let me ask if we ended up with users fees in the course of this year, would it be more acceptable if we phased them in gradually instead of abruptly throwing the charges on the system? Would it make it a little easier to absorb?

Senator QUIGG. As Representative Monohon mentioned, the commitment of both private and local government depended on them expecting to have the Federal Government deliver its end of the bargain, so to speak. And all of a sudden, like within a year, to make a change of this magnitude would really throw a horrible monkey wrench into the works.

I think that whatever is done, if it's to be done with any chance of success, should be phased in. Because we are talking about the kind of capital commitments here that have quite an amortization in time. And to all of a sudden change the whole ball game, the playing field and maybe even the game totally like that is going to be a tremendous hardship. And I think we're going to end up, as I mentioned in my remarks, really hurting our economic recovery rather than helping it.

Representative MONOHON. I think that they should be phased in, if there are going to be user fees, over as long a period of time as possible. They should also be uniformly addressed to all marine systems and not to certain ports.

Senator ABDNOR. Let me ask you this, then. Do you see a difference in just maintenance of the ports when you talk in terms of new construction? Do you think that should be looked at in a different way than maintenance?

Senator QUIGG. Just as in the last question, we have substantial commitments that have been made, big capital commitments, under the present format. Of course, a new construction project coming from the drawing boards into reality or at least to the funding request stage is probably going to be a little flexible and be able to be more immediately funded through a different format than one that's been committed to some years ago.

And I think that the new construction may—particularly new construction that can be funded by the people that are going to be—of course, O. & M. and those kinds of projects probably lend themselves more to a funding by the user. And I did note that the legislation that I have seen—I've seen the Hatfield proposal and the—I think it's 809. I had a chance to review that as well—does have that in there the acquisition authorization for local governments or agencies to go ahead with projects that are funded by users.

And if, as I saw when I was in the Orient in June, the Western Pacific nations are so concerned about coal—and I'm sure you are hearing a lot about this—that they are looking at securing a supply in the world wherever they can and they are concerned about the delays in funding and permitting and all this sort of thing that have occurred around here. So we may find that that kind of authorization is something that should come out of here to allow those folks too, still within the permit process and still to make sure it's environmentally a clean project, to fund these without waiting for the Federal Government to come up with funding on new projects.

Senator ABDNOR. Good thought. We have been hearing and we know about coal.

Senator QUIGG. Mr. Chairman, in Korea they are talking about 50 feet of the dock for coal unloading, and that's a tremendous capital project just about anywhere you care to think of along the west coast. So these are big dollars, and I think if they are interested in helping—we don't get foreign aid very often. I don't think we should let that good source come out.

Senator GORTON. Representative Monohon, I think that in one sense the question is more difficult than you implied from your paraphrase of what David Stockman said. What he said in his testimony would be that if we ended the subsidy for waterborne commerce, the growth in that kind of traffic between now and 1990 would be 12 percent less than it would be with the subsidy continued. But it was in waterborne commerce which is competitive with rail commerce.

There would not be a loss in commerce. It would be a displacement of waterborne commerce to rail commerce, essentially along internal waterways. So the philosophical question that we face and we have always faced in the United States is, Should one of those forms of competing transportation be subsidized at the expense of the other, rather than should we simply lose commerce which would otherwise be in existence?

This does, in a sense, lead me—and I'm perfectly happy to have you comment on that. But I'd like maybe to go a little bit further on what Senator Quigg was asked.

Assuming that there are going to be some kind of user fees in this area, I take it from your answer that you would find that you would believe ports better able to absorb a substantial user fee in connection with capital improvements than with operations and maintenance. As between the two of those, that would be an easier proposition, am I correct?

Senator QUIGG. I believe so, Senator. The people that are considering the investment are looking at it in its incremental increase and their risk in the investment portfolio. So I imagine they'd be more apt to decide on that.

Senator GORTON. What you're saying in connection with operations and maintenance is that many of these capital investments have been made on the basis of the continuation of an existing policy and that it is unfair to change the rules in the middle of the game.

Senator QUIGG. Particularly when you are dealing in international trade where the ability and dependability are the kinds of things that these folks care very much about, you know. The governments that change rapidly and take off in new directions and nationalize everything one year and then they try to sell it all off the next are governments that don't do very well in international trade.

And I certainly don't think we want to follow along in that line. I think we want to be able to be a consistent trading partner in the world market.

Senator GORTON. Representative Monohon, don't you agree with those remarks?

Representative MONOHON. Yes; I do.

Senator ABDNOR. Thank you.

Senator PACKWOOD. Slade, when you gave me this argument of subsidies and said we're going to be subsidizing the waterways; and if we don't, all we're going to do is move this to a competing and more economical transportation, it forgets the incredible subsidies we gave the railroads and from which they still benefit. They're close to the biggest owners of coal and timber because of the lands that we gave them to move west. And in many cases, those lands are now carrying money-losing railroads.

Second, if we were going to say we're not going to subsidize any methods of transportation that don't pay their own way, your State, mine, certainly Senator Abdnor's would have most of their towns unconnected by highways in sparsely populated areas. If that's going to be our policy, which all of us are going to pay some taxes to support, we're going to have a tremendous dislocation; and not just in waterway transport. We're going to have it in highways.

And if we are going to take away the real subsidies the railroads got with the incredible grant of land that they received as they moved west, then we all better sit down and think what we are going to do before we make any moves. Because there will not be a town in any of our States unaffected by those kinds of shifts.

Senator ABDNOR. Thank you. Our next panel is an agricultural group, Tom Winn, Ed Balsiger, Don Munkers, Keith Ellis, and Cecil Brennan.

Mr. Tom Winn, assistant to the director of the Oregon Department of Agriculture, you're sort of the moderator here. Would you care to introduce your panel?

STATEMENT OF TOM WINN, ASSISTANT TO THE DIRECTOR, OREGON DEPARTMENT OF AGRICULTURE

Mr. WINN. Thank you, Mr. Chairman, committee members. For the record, I am Tom Winn, assistant director of the Oregon Department of Agriculture. I have with me this morning members of the agriculture administration, who are here to testify this morning. On my far right is Don Munkers, executive vice president of Pacific Northwest Grain and Feed Association. Next to him is Ed Balsiger, manager of the North Pacific Grain Growers.

In the middle is Keith Ellis, the director of the Washington Department of Agriculture. And sitting next to me is Cecil Brennan with Gratron, and he is representing the Wheat Producers of the Western States this morning.

I'll give you a few comments from our perspective this morning and then turn it over to the other members of the panel.

Legislation designed to implement inland waterway user fees on the Columbia and Snake River system is causing concern for Oregon farmers dependent on this system to deliver their farm commodities to market.

In 1980 agriculture was the No. 1 industry in Oregon. Oregon farmers continue to become more efficient, produce more products on the same amount of land and continue to vie more and more for foreign markets to sell their products. Commodity trade teams and foreign market development specialists are all working hard to increase Oregon's share of agricultural sales to foreign markets. Frozen and fresh agricultural produces, grains, hay cubes and livestock products have all been steadily increasing their volume in overseas markets.

We do not oppose the administration's concept of recovering the cost of operation and maintenance of the Columbia and Snake River navigation system. We do, however, disagree with the method the administration has chosen to recover those costs, as they place a heavy burden on certain segments of Oregon's agricultural industy, especially wheat.

An increasing share of Oregon's wheat shipments are moving down the Columbia system by barge. Currently about 50 percent of the grain moving down the Columbia system is by barge and the rest by rail and truck. Barge traffic for grain is expected to increase as it is the most efficient mode of transport (three times more efficient than rail). Also rail traffic is at its peak in the ports of Portland and Vancouver and it is doubtful that the rail system could expand its capacity to any more than a nominal degree.

Imposition of waterway user fees on these commodities could well place Oregon and Washington in a very uncompetitive situation with respect to other nations competing for agricultural foreign trade channels. Additional fees could close the door to many foreign markets as costs to those customers rise and they search elsewhere for cheaper commodities.

Various figures as to how much the administration's bills will cost the farmer have been presented. Until such time that the Department of Transportation's 205 study of the Inland Waterway Revenue Act of 1978 is completed, it will be difficult to assess exactly what this act will cost the Oregon farmer. Estimates by Gratron, the transportation study wing of the Oregon, Washington and Idaho wheat industry are frightening, however. Five to six cents a bushel extra for transportation costs on the Columbia-Snake system have been projected, money that will come directly out of Oregon wheat farmers' pockets as they are unable to pass this additional cost on to anyone else.

Lastly, Oregon Senator Mark Hatfield, has introduced legislation that would impose surcharges on imports and exports that benefit from the waterway system. This bill would implement uniform surcharges, based mostly on tonnage, on imports as well as exports.

We are aware that there could be potential problems with the GATT agreement, but has merit and should be examined closely by this committee.

I believe Senator Hatfield's bill is a more equitable system of assessing user fees on those who benefit from inland waterway systems.

As my last statement, Mr. Chairman, beyond that, however, until such time as accurate figures are developed to show what the cost of all potential legislation will be, I strongly suggest that this issue be placed in abeyance.

Thank you.

Senator ABDNOR. Thank you. Would you care to introduce the gentlemen? I don't know what order they want to go in.

Mr. WINN. I don't have a copy of the agenda with me today. I believe Ed Balsiger is next.

STATEMENT OF ED BALSIGER, MANAGER, GRAIN DEPARTMENT, NORTH PACIFIC GRAIN GROWERS, INC.

Mr. BALSIGER. Mr. Chairman and committee members, my name is Ed Balsiger. I am the manager of the Grain Department for North Pacific Grain Growers which is the export cooperative headquartered in Portland, Oreg. Our company is owned by 47 local grain cooperatives scattered through Washington, Oregon, Idaho and Utah. These local cooperatives, in turn, are owned by some 18,000 grain producers who have a direct interest in the issues to be examined here today.

U.S. agriculture depends on an efficient, competitive transportation system to move supplies to the farm and to move the crop to market. The Pacific Northwest epitomizes the model of vital transportation links to a healthy farm economy. We are served by two profitable, efficient railroads that furnish modern equipment and good service to the farm area. An expanding and responsive barge system on the Columbia/Snake River system linked with trucks from farms as far away as Montana and the Dakotas moves grain to the export terminals in the Columbia River district for shipment overseas.

Both modes of transportation are examples of healthy competition at its best. Of the 1980 PNW white wheat crop of 246.6 million bushels in Washington, Oregon and northern Idaho, 61 percent moved by barge and 39 percent by rail or truck to export. Ninety-two percent of our white wheat crop is exported. One hundred percent moved through the Columbia River district ports. That's right, no white wheat was loaded out of the Puget Sound last year.

This movement is typical of the last several years and illustrates the development of a highly efficient, economical system of marketing grain. To further explain the system, a brief discussion of its PNW export segment may be helpful.

Ten exporters, including the so-called big five multinational corporations, two regional cooperatives, two regional independent corporations with stock controlled by Japanese trading companies and one regional independently owned company are represented here. Seven of these companies operate ten export elevators.

The three elevators in the deep water of Puget Sound are restricted to incoming rail traffic. The remaining seven elevators in the Columbia/Willamette River district have the versatility of receiving grain by barge, rail or truck. All the 1980 PNW white wheat crop was handled through these seven elevators. The three in the Puget Sound were dedicated to handling corn and yellow grain sorghum from midwestern origin points.

Thus, PNW grain growers depend on the Columbia River district which will be affected by two separate waterway users charges. This double-whammy comes from maintenance of the 14-foot channel for barge transportation from Lewiston, Idaho to the Portland/Vancouver area and maintenance of the 40-foot channel for ocean-going vessels from Astoria to Portland.

On its surface, maintenance of the Columbia/Snake system doesn't sound overwhelming until you consider the new lock construction of an outdated lock bottleneck at Bonneville. This project is estimated at $138 million now, and by the time it is actually constructed, will be much higher. Maintenance costs of the 113 mile ships' channel and the Columbia River bar contrasts with virtually no upkeep cost at Seattle. This terrifies a grain export community with its $150 million investment on the Columbia River system and the ripple effect through the entire agriculture community in the PNW.

To replace these export elevators at another location would cost at least three-fourths of a billion dollars. An investment to move the industry would require handling charges to be raised by $17 per ton or 57 cents per bushel just to service the debt over and above present costs.

Full recovery of costs for maintenance of the separate channel and harbor segments translates to about $1.16 per ton for the grain haul alone. Incoming and upriver hauls of fertilizer and petroleum magnify agriculture's plight. These increased costs will be passed on to the producer since world competition will not allow sales prices to foreign countries to be increased to cover the additional expense. We compete daily with Canadian, Australian, French, Argentine, Gulf, Atlantic and Great Lakes suppliers.

Typically, export sales are determined by a very few cents per ton. Any extra charges added to the sales price simply knocks the seller out of the worldwide tender and gives our exporting competitors the sale. Farm prices go down as a result, and the balance of payments are even further reduced. Loss of these export sales hurts everyone in the United States.

The railroad companies will have the enviable choice of raising their rates to the level the barge companies will have to charge to recover costs, or they can maintain rates at present levels to force the bankruptcy of the barge industry. Either way, the producer will foot the bill, and this already weakened segment of the U.S. economy simply can't afford it.

We do not question the overall application of users fees to have the people who use services pay the fiddler. We do, however, question the proposals that will discriminate against ports such as the Columbia River district by charging fees specifically aimed at the individual segments of the U.S. system. The economic upheaval caused by displacing present facilities to other locations could be disastrous.

If we must have users fees, we support the cost recovery method of Senator Hatfield's Waterways Transportation Development and Improvement Act of 1981. It accomplishes our goal of maintaining and operating our inexpensive, efficient grain handling system while achieving the administration's goal of shifting taxation from the general taxpayer to the overall industry using our waterways. It took over 50 years to build a viable, efficient, low-cost system for transporting and handling our grain in the PNW. We can't turn our backs on a system that works.

We ask you to give the utmost consideration to all the ramifications of these dramatic changes.

Thank you.

Senator **Abdnor**. Thank you, Mr. Balsiger. Again, I'll have to ask that you gentlemen summarize, because we've got a long ways to go today.

Mr. Munkers?

STATEMENT OF DON MUNKERS, PACIFIC NORTHWEST GRAIN AND FEED ASSOCIATION

Mr. **Munkers**. Mr. Chairman, distinguished members of the committee, my name is Don Munkers, Pacific Northwest Grain and Feed Association vice president. We are located in Portland. We represent many country elevators and feed operations in Oregon, Idaho, Washington, and Montana.

Very briefly, I would like to point out in the written testimony that you have that the statistics that we have developed are very elementary, and they take into consideration what might happen if we have an immediate implementation of the administration's proposal on waterway user fees. I won't go into those figures as you have them there in front of you.

But I can't overemphasize the fact that they do not take into consideration the increase of the cost of fuel if we shift commodity transportation from the river over to the other modes of travel, although there is a comparison in current fuel. It's an estimate.

Our testimony centers around 23 firms on the Columbia/Snake River system. And of these 23 firms, I'd point out that 14 of them have no rail service whatsoever. There's three of them that can load 26-unit trains, which is the preferred mode of the railroads. And at $60 a foot for rail service, it's very doubtful, in our opinion, that the 14 firms would bring rail service in or that the ones that can't load 26 cars would update. And, therefore, they will probably, if the implementation is immediate of waterway user fees, close their doors, which would leave the other three firms with the duty or the obligation of trying to move some 175 million bushels of wheat which is now being carried on the river down to the port facilities in Portland, Kalama, Longview, and Vancouver.

This means that there would be some 2,037 26-unit trains that would have to come into this area. And it is our opinion that if the railroad could indeed move that many trains, the facilities here could not unload them, because they are not equipped to handle strictly rail transportation.

In our testimony we also pointed out that, as has been brought out previously, the increased demand for wheat from the Pacific Northwest to 402 million bushels in the year 2000 from the present level, is reflected in the some $17 million worth of updating that has been carried out in the port facility so far and also the new facility that is planned at Woodland, Wash., by Coast Trading and by recently signing of the agreement between Peavey and the Port of Kalama.

We, too, suggest that you wait until the 205 study comes out, although we have some questions concerning that study and that it is apparently one of the best-kept secrets in the Pacific Northwest, because nobody's been asked one question concerning that particular study. And we also, as you will read in my testimony, question the potential prejudice of that study because of the affiliation of the railroads with one of the members of that study committee.

Briefly, we oppose the current administration proposal. We don't think that it will be equitable. As you have been told, the costs would be passed on to the producer. The producer would, in turn, because of lower prices, very likely put additional pressure upon Congress for subsidy type payments. And, as was pointed out by the Congressman from Washington of the 19th District, which payment is going to be the lesser of the two?

I want to thank you for allowing me to sit here before you and answer any questions.

Senator ABDNOR. Thank you for a fine statement.

Mr. Ellis?

STATEMENT OF KEITH ELLIS, DIRECTOR, WASHINGTON STATE DEPARTMENT OF AGRICULTURE

Mr. ELLIS. Mr. Chairman and members of the committee, I am Keith Ellis, director of the Washington State Department of Agriculture. I welcome the opportunity to testify before you today on the subject of waterway user fees, and I, too, shall paraphrase as I go through, in the interest of time.

The prospect of adding to the transportation costs of waterborne agricultural commodities through a user fee structure is of serious concern to the farmers of Washington and the Pacific Northwest.

In particular, we view the Columbia/Snake River system as a transportation system which is competitive with alternative modes of transporting agricultural and other commodities and thus benefits the farmer by keeping his marketing costs down.

While we subscribe to the objective of renewed fiscal responsibility espoused by the Reagan administration, we do not feel that any one waterway user can be unfairly burdened by a regressive tax. Unfortunately, the farmer stands to lose the most in the case of any additional waterway user fees. The close parallel of agriculture to perfectively competitive market theory has a negative effect on farm income in a case such as this. The farmer cannot raise the price he receives for his commodity to offset the increased costs of production.

It is important that you recognize that the individual waterway user is not the only beneficiary of a water transportation system and that the public benefits by its efficient use in the form of reduced consumption of energy, a low-cost alternative to rail and truck for grain and other export commodities, and ultimately helping keep domestic food prices down by providing a cost-effective means of moving agricultural commodities to expanding international markets.

In our State and region, a major impact of pending waterway user fee legislation will be an increase in uncertainty for the wheat producer and shipper. Since no one knows precisely to what levels the user fees may increase over time, producers will be uncertain about investing in specialized farm equipment and marketing firms may be reluctant to develop additional port facilities.

Grain constitutes more total tonnage on the Columbia/Snake River system than all other commodities moving up or down the river (6.2 million tons for the period May 1980–June 1981). Tremendous quantities of fertilizer and petroleum products vital to agriculture move upriver to distribution points. In 1980, 83.1 million gallons of fertilizer moved upriver. Petroleum products moving upriver alone totaled 437.1 million gallons in 1980. This is a further indication that the impact caused by a user charge would fall heavily upon grain producers and shippers and support industries.

As I mentioned previously, farmers cannot pass on this increase. Historically, waterway user fees have been considered against public policy and a retardant of economic growth and prosperity. From the viewpoint of the farmer in Washington it means the potential of additional costs and less income.

In spite of the potential impact of additional waterway user fees on farm income, we recognize the fact that if the Columbia/Snake River system is to continue to be a viable, efficient means of moving agricultural commodities, it will require maintenance and new construction.

I think that while you will find that most farmers may not agree in principle with additional waterway user fees, they also do not expect a handout. Farmers in this region recognize the importance of the Columbia/Snake River system to the continued success of their operations and are willing to pay a fair and equitable share of the costs of developing and maintaining the system.

But fair and equitable means apportioning the costs of development, construction, operation and maintenance among not only the direct users, but also those who benefit either directly or indirectly from these activities at little or no cost, that is, recreation, fish and wildlife, flood control, municipalities, power consortiums, national defense, and so on. And we would really believe that we should get a broad spectrum of all of those costs so that we do not have an unfair burden as far as agriculture is concerned.

I urge the Subcommittee on Water Resources to defer consideration of any waterway user fee legislation until after we have heard from the section 205 study. And in rapid conclusion, we would also like to suggest that this perhaps has to be one of the best-kept secrets in the United States. We can find nobody in our particular area who has been contacted or advised concerning this study.

And, consequently, we are somewhat opposing it, Mr. Chairman. I recommend that upon receipt of the section 205 study, Congress allow a sufficient review period by the affected parties before you proceed with any legislative proposals.

Thank you.

Senator ABDNOR. Thank you. Mr. Brennan?

STATEMENT OF CECIL L. BRENNAN, REPRESENTING THE GRAIN TRANSPORTATION CONSULTANTS OF THE PACIFIC NORTHWEST AND THE NATIONAL ASSOCIATION OF WHEAT GROWERS

Mr. BRENNAN. Thank you, Senator Abdnor, Senator Gorton, Senator Packwood, Congressman Clausen. My name is Cecil L. Brennan, and I am here representing the wheat producer members of the Oregon Wheat Growers League, the Washington Association of Wheat Growers, and the National Association of Wheat Growers. These groups have members in the 15 Western States.

We are really not here to oppose user charges, as such, because we are already paying user charges. But we do ask this committee to give full consideration to the impact such proposed charges will have on the movement of grain, including the impact on regions, facilities, the national transportation system, ports, and other commodities as well as the impact on the national economy because of possible changes in the manner and volume of export business.

We have made up a very lengthy statement, which we have abstracted, and I will attempt to summarize the abstract. I mentioned the grain industry is presently paying a user tax, and it is. By the time this present tax is fully implemented, we estimate we will be paying about $50 million a year. At the present time producers on the Columbia/Snake River system are contributing about $400,000, which by 1985 will go to well over one-quarter million dollars.

We are particularly concerned about the administration's waterway user charge bill, as it will affect the cost and the availability of transportation, as it is the producer who bears the cost of transportation, regardless of the method, as a cost of marketing. Transportation is a basic cost of marketing, and the producer does bear the cost of marketing its commodity.

The producer is looking for nothing more than a national transportation system that will meet the needs of the producer and of the Nation, and they must oppose any action that will have an adverse effect on their economy as well as on the economy of regions or of the Nation.

The producer is engaged in the world markets, yet represents perhaps the only major provider of services who has absolutely no control over the prices of its produce. The impact of the proposed legislation will be felt directly by the producers, whether regionally or nationally, as the accompanying increased transportation costs will not be passed on to the buyer but will be absorbed by the producer.

The user charge will also result in conditions that will be counterproductive not only for agriculture, but for the waterway industry, the ports and the rail carriers as well, as it would greatly restrict our efforts toward increasing coal exports and lead to the possible elimination of many port facilities, and you will be taking from us a very important mode of transportation.

The inland waterway system does not represent destructive competition to the rail carriers, and you will note the exhibits I've attached in my main testimony show the rail carriers do handle more than 50 percent of the grain volume, considerably more than 50 percent.

I would like to touch very briefly on the 205 study. We have not been contacted nor has anyone to my knowledge been contacted in the Pacific Northwest regarding the impact of the 205 study. I think this is extremely important, because the Columbia/Snake River system is a major wheat carrier, and that fact will be borne out in the exhibits as well.

We do support the concept of the legislation contained in Senator Hatfield's bill. There is also another bill—proposed bill we have heard something about this morning and will hear more about later on, undoubtedly, which is the recommendation made to Governor Atiyeh by the Maritime Committee.

We recognize that much of the push for increased user charges is coming from inland competition, rail carriers and barges. We feel that the grain producer is being whipsawed in this argument, and we really should have no part of it. But I think the committee should recognize that during the worst car shortage in history, a period we just went through not more than a year ago, had it not been for a very viable inland waterway system, our grain exports would have been cut in half. They would have been reduced by at least 50 percent.

I didn't plan to go into the subsidy issue, and I'm not. We have Senator Packwood's comments on the subsidy issue.

Senator ABDNOR. Very well.

Mr. BRENNAN. I would request, however, Mr. Chairman, that you or your committee members or your staff take the time to read the rather lengthy testimony we have provided to you, and I'll apologize for burdening the record further, but this is a very important issue to the grain producers. Thank you.

Senator ABDNOR. Thank you, Mr. Brennan. I think that I can say, without reservation, I have a very selfish and parochial interest, because my State is the biggest agricultural State in the country as far as percent of income deriving from agriculture.

So we are all very interested in being fair and equitable, because one thing I hope to see accomplished in any kind of legislation is that it is going to be fair and equitable. I agree with whoever said that we certainly are going to someway break this down so all folks that are receiving benefits are taken into consideration, in recreation or irrigation, whether it's flood control, so we won't have any inequity.

I'm just as interested in seeing the 205 study as anyone else. As a matter of fact, the whole staff heard this comment that we haven't had input from various areas, and we are going to look into that. And I'm sure we'll get back to you and see what kind of input came from these areas of the country. But we hope that when that study does come out, that different groups will analyze it and give us your comments, it's important to us.

We have got to be fair and not put anybody out of business. On the other hand, we are talking about the difference between maintenance and new construction. We're all under the gun now. It's not like we had the money. I think the whole picture's completely different.

In this last election, the people spoke out. We've got to someway bring this thing into balance. Not just picking out the water users, but I think you're going to see this in lots of legislation in other areas; some kind of balance in the budget. Because certainly inflation has been hurting the farmers probably more than anyone that I can think of.

Let me ask you will farmers benefit from the use of deep-water ports? Is that a prime consideration to wheat growers?

Mr. BRENNAN. I don't think so.

Senator ABDNOR. Over 45 feet I'm talking about.

Mr. BRENNAN. Deeper than 45?

Senator ABDNOR. Yes.

Mr. BRENNAN. No, I don't know of any farm groups that are asking for deep-water ports.

Senator ABDNOR. There we go again. We've got to be fair. Farmers would probably object if we did come up with a user fee in big ports to pay for extra depth they don't need.

Mr. BRENNAN. May I may a comment? I think there's one thing that we are talking about new facilities. Many of the new facilities are built either by the ports at the present time or by the industry who is going to use them. Much of the maintenance that's carried on today is carried on either by the port or the facility using that particular segment of the port area.

I'm having a little difficulty following the new construction concept and where we're—if we're talking about trying to dredge the Columbia River to a depth of 45 feet or 60 feet or whatever depth. Perhaps this is something else, but under the present concepts—and this is what we're concerned with, is maintaining, being able to maintain our present facilities and our present following. As Mr. Clausen indicated, it would be prohibitively costly to relocate the present grain shipping facilities. We just couldn't do it. If we were to be denied the use of the waterways, we would be looking at at least a 50 percent reduction in our export capability.

Senator ABDNOR. Well, did one of you gentlemen indicate that if we put the users fees into effect, it would put the shipping out of the realm of using the water and that the trains would not be able to carry the additional load?

Mr. MUNKERS. Yes, sir.

Mr. Brennan. May I address that, please? Recently, again, the Congress had or authorized a study to be made of the Portland terminal district, and it was called the Portland Terminal project, and it was patterned after projects that had been made in Houston, St. Louis, and one other interior point. I don't recall right now. At any rate, the upshot of that study—and we did participate in that study—had to do with the fact that the Portland gateway was very restricted and congested, and it appeared as if there was nothing that could be done during the decade of the 1980's in order to relieve that congestion.

If we were to be denied the waterways, there would be no way for the railways to pick up the increase. I'm not saying the rails are to capacity, but they could not increase 100 percent, and that's what we would be looking for.

Senator Abdnor. We were told by the port engineers that if we started dredging tomorrow, we couldn't get it done in time to carry the additional load they anticipate coming up. That's about $310 million. Do you really think, though, on this new construction somehow we've got to let the users carry that to some degree, at least a portion of it?

Mr. Brennan. They are carrying it now.

Senator Abdnor. You said they are paying $50 million, but I suppose some of that's for the use of the boat and gas and everything else.

Mr. Brennan. No, that's just the 4 cents a gallon fuel tax that will go to 10 cents by 1985.

Senator Abdnor. How much does that tax bring out if you pay $50 million? The fund is only $10 million, so I'm trying to figure out for the whole country so far——

Mr. Brennan. If I understand correctly, Mr. Stockman testified that in the first 3 months the user charge had been in effect, which was October, November—I'm not sure of the month, but they were winter months at any rate—that the grain industry had paid $5 million in user charges. We would anticipate that between now and 1985 grain exports are going to be something like 10 percent a year.

Senator Abdnor. Thank you.

Senator Gorton. I'd like to ask a question, and perhaps you can enlighten me on this, Mr. Balsiger.

In your statement you state that, "Full recovery of costs for maintenance of the separate channel and harbor segments translates to about $1.16 per ton for the grain haul alone," and Mr. Munkers says, "The effect of the proposed administration increase on this cost," which is 13 cents per bushel for waterborne transportation, "is difficult to ascertain, however, it has been estimated by others to reach as high as an additional 8 cents."

What are we talking about if the administration's proposals were fully implemented from the point of view of cost per ton of transporting?

Mr. Balsiger. Senator Abdnor referred to the Port of Portland study, estimating 50 tons to have to pay fees of $63,750, and that's the present maintenance of the harbor. I believe Mr. Munkers was referring to the total river costs and new construction costs of the Bonneville Lock and so forth.

Senator GORTON. Well, so you are putting together both operations and maintenance and improvements, then? Can you separate that out? What is your view to the cost per ton of the transportation of grain, assuming a 100-percent recovery of operations?

Mr. MUNKERS. It would probably be twice as much as what I have here. But we have not completed a study on that.

Senator GORTON. That is to say 16 cents a ton?

Mr. MUNKERS. Yes. A $1.16 is the Port of Portland's study on the harbor segment. But we are looking at construction of new locks at Bonneville.

Senator GORTON. Let's take at this point only operations and maintenance and leave aside capital construction. And let's assume for the purposes of this question that there is going to be some attempt at recovery for operations and maintenance. Let's assume that it might state, as far as ports are concerned, that there's going to be full cost recovery for operations and maintenance, provided, however, that it will not exceed so many cents per ton. That is to say, to put a roof on it in order to prevent the tremendous dislocation about which you gentleman testified so very impressively.

If we were to do that, not the halfway approach at this time, but simply a cost recovery by a port-by-port or waterway-by-waterway basis but in no event would exceed a certain number of cents per ton, what would be an amount that could be reasonably absored by the agricultural business in the Pacific Northwest without seriously and adversely affecting it markets, granting to go to this whole thing would cause a tremendous dislocation, but also granting that many of you, I think very honestly and candidly, have said that you do think that some recovery is appropriate?

If it were on a per ton basis, what would be the maximum that you could deal with?

Mr. MUNKERS. I think you are asking the impossible. However, I pointed out in my testimony that when you are competing with other ports such as the Port of Seattle with virtually no costs of maintenance, at least very low, that when our worldwide tenders are held, that the Columbia River District would be locked out of that tender, because they have additional costs over the elevators.

Senator GORTON. Certainly, but to transport your grain to Seattle, you would have to use rail or truck or one of these more expensive methods, so if it were 2 or 3 or 4 cents per ton, that wouldn't shift the traffic to Seattle, would it?

Mr. MUNKERS. No, that low certainly you could live with, yes, if you're only talking a very few cents a ton. But when you get to a dollar and some is what I was saying.

Senator GORTON. Obviously, at a dollar a ton, it would be prohibitive. I think it would be exceedingly helpful to us, especially when the 205 study comes out, for the Columbia River ports and for the grain growers to come up with a kind of a cents per ton proposal with which they could live reasonably without dislocating the present system.

This is the thrust of my question now. Maybe you can't answer it now, but it would sure be helpful for us to know that, because that's something, at the very least, we need to know.

Mr. MUNKERS. Senator, I certainly agree with the question. I feel that we would need some time to gather the facts to accurately answer this type of question, but I agree that it should be answered.

Senator Gorton. Your own statement includes what I think is a very unlikely statement that you are not asking for a total and complete subsidy. But the fair share, when you take out all of these uses and don't get agriculture with all of it, might well be appropriate. Now, I guess this is for Mr. Winn.

In your statement you spoke of the three methods of transportation of wheat and spoke of waterborne as most efficient. I assume that that meant—which one—which testimony is it that has the tables, the cost per ton? I can't remember right now.

Simply, is that from the point of view of full use and from the point of view of present costs that waterborne is the most efficient of the three methods of transporting grain?

Mr. Winn. Yes, Senator, that's correct.

Senator Gorton. Do I take it then, because all three methods are used to a certain extent, that wheat is trucked only when it can't be practically shipped by rail or by water, and that it is shipped by rail only when it cannot practically be shipped by water?

Mr. Winn. That's essentially correct, yes.

Senator Gorton. All right. Thank you.

Congressman Clausen. First of all, I'm most appreciative of the testimony that you have provided, but I'm also intrigued by the line of questions that the distinguished Senator from Washington was asking. And precisely, Mr. Ellis, I want to commend you for what I think is one of the more definitive sections of the statements that have been made, and that goes to the issue of fair and equitable means of apportioning of the cost of development and construction, operation and maintenance, not only by the direct users but also those who benefit either directly or indirectly.

I think that approach is one of the more constructive approaches that I have heard. But, now, that's a general statement. And when we start getting down to the specifics—and the specific is as you come up with your apportionment of costs for development and construction, operations and maintenance, then how do we define the direct users and/or the indirect users? Is it possible to identify them and to incorporate them into an ultimate scenario where you could then apply a fair and equitable cost apportionment formula? Is that possible to do?

I think that if you were to take the time to expend on what I think is a good beginning; namely, what you mean by "fair and equitable" and go further into a definition of the direct and indirect users as well as a suggested breakdown on what percentage should be apportioned to the direct users and/or the indirect users. And I think if you do that, you would provide a great service to this committee as well as to Congress in taking the time to give us that kind of input from this section of the country.

Is that possible for you to do?

Mr. Ellis. Well, sir, as you well appreciate, this is a very complicated thing to do. However, we happen to feel that it is a very necessary thing to do. However, it's going to require some time and talent. However, I happen to feel that if the parties were all to sit down in good faith to—and we would have to take both the direct and the indirect users, recipients of this—but if they were to sit down in good faith, I think it could be equitably and fairly separate between all the sectors.

Congressman **CLAUSEN**. When I listened to Senator Gorton's line of questions and then your response, I said, "For the first time we are starting to get some constructive alternatives," because either you're going to do it, or somebody's going to do it to you or for you.

And I think the sooner that you apply your own expertise—you see, I'm out of my State. I can say anything I want. I've sat here for a number of years, and people will come in with all the generalities in the world, but nothing happens. And then they will scream bloody murder when all of a sudden, someone starts to come up with a cost allocation for them.

And so I really believe I'm going to take you up on this thing. And before Bob Packwood left, I said, "That's one of the more significant statements that's been made this morning," and I hope you will pick up on this and give us the benefit of what we know is information out there but very difficult for us oftentimes to extract in the course of a hearing.

And so could we, Mr. Brennan, rely upon you to pull that together and submit it to the committee?

Mr. **ELLIS**. We would certainly attempt to do this to the best of our ability, and I'm sure that our capability of doing this will depend on the degree of cooperation that we have to have from all sectors. But we would certainly give it a try.

We used to have an old saying down on the farm that "Those that will do it for you will also do it to you."

Senator **ABDNOR**. When we were in St. Paul, the Governor and their legislators all referred to a study they are doing on costs, and we are looking forward to having that, because you know they are very deeply interested in what happens to users fees on the Mississippi.

So when we get this information, it's of great help to us. We've got to have something to fall back on, and you are the ones that supply us with the needed information.

Congressman **CLAUSEN**. Well, Mr. Brennan, I think I heard you make reference to the fact that wheatgrowers are not necessarily supporting or involved in a pro or con as far as deep port facilities, and that suggests to me that maybe you think that those deep port facilities in no way actually help the wheatgrowers. Was that your testimony, or did I misunderstand?

Mr. **BRENNAN**. I think the answer was that none of the wheatgrowers were asking for deep port development.

Congressman **CLAUSEN**. But then if we look at this thing on a systems approach, I'm talking about a transportation system that's essentially waterborne. Clearly, the wheatgrowers have an interest in some of the locks and dams that we authorize in my committee.

Mr. **BRENNAN**. Yes.

Congressman **CLAUSEN**. Most of which are funded how? What percentage is paid for by the user fee?

Mr. **BRENNAN**. It would actually be a very small percentage at this point.

Congressman **CLAUSEN**. And so what I'm saying is that all of these things are relative. No one came forth and volunteered to pick up some of these additional costs. And as a result, we find ourselves, what with the expanded demands on the Federal Treasury, in a big deficit. And somewhere along the line, we've got to come up with something different.

Mr. BRENNAN. I think we've got—we're not advocating deepwater ports. We are certainly not opposed to them. We are not opposed to anything. In fact, that's one of our major concerns with this concept or the administration approach—that we feel that it's being restrictive and will impact on our exportability.

Congressman CLAUSEN. OK, well, it just—the only point that I am making here is that all these things are relative, and they all end up as a part and parcel of the system. And, of course, we end up dealing with ports and inland waterways and locks and dams and the requirements that are necessary to make it a vital transportation system.

Mr. BRENNAN. SURE.

Senator ABDNOR. Well, thank you, gentlemen. We appreciate having your testimony and your time and hopefully we'll hear from you later on.

Our next panel we call the coastal port panel. Lewis Holcomb, Henry Soike, Bill Herder, Richard Ford, and Robert Petersen. Will you gentlemen come forward?

Mr. Holcomb, you have a statement for the record which will certainly be part of the record when you send it in. In the meantime, you go ahead and summarize.

Mr. HOLCOMB. Thank you, Mr. Chairman. I would like to introduce the members of the panel. And if I may delay that just a moment, one of our members has an extremely urgent time schedule to catch an airplane just any moment, so if we call upon him as the first witness, Mr. Richard D. Ford, executive director of the Port of Seattle.

STATEMENT OF RICHARD D. FORD, EXECUTIVE DIRECTOR, PORT OF SEATTLE

Mr. FORD. I won't belabor my statement, which you have. Just very quickly, we have indicated in that statement we think that the issue here ought to be divided into three points, three general areas.

First deals with currently authorized projects and their maintenance and operation. It's the feeling—it's our feeling that as to those projects, there really is not enough known as to what the impact would be by the sudden implementation of user fees. The dislocation that could come from that, we think, requires that Congress spend more time to get the facts.

The 205 study is one example, but there really needs to to be a lot more done to determine exactly what would happen if fees were assessed.

New projects—there we would say cost sharing, increased cost sharing by the local interests may well be in order. I think you are well aware that local interests already share portions of the costs, but this would be merely an extension of that concept.

We would hope that if this was pursued, however, that there be a clarification as to the ability of local organizations to apply user fees, against vessels in particular.

And finally, we want to be on record opposing any kind of a national users tax or any kind of a trust fund. I think you will note that a number of ports have endorsed my statement, and I think of all the issues, we get most emotional about the last. We do not want a trust fund. We are already going FAA. We don't want it, and we don't want national users fees. If we have to finance this locally, we'll do it, but not on a national basis.

Senator ABDNOR. You want individual fees for the individual port. Is that how you'd work it?

Mr. FORD. Personally, I would have perhaps two things: a combination of what the congressman mentioned, a system approach and a market approach. It seems to me we need a market approach to sort out the wheat from the chaff. And as to that, we would have local user fees or however they wanted to finance it. That would be their problem.

On the systems approach, it seems to me Congress has a good deal of homework left to do on this, what's in the national interest.

Congressman CLAUSEN. That's right.

Mr. FORD. You talked about the airport situation and also operate the airport. Should the person flying on an airplane from Portland to your home district help to fund the airport at Bandera, Wash., which is an emergency airfield for light aircraft? Apparently, in the aviation industry, we have made that decision, and they are eligible for FAA funding as an emergency airfield. And they say it's OK for the guy flying on a transcontinental flight to pay for that airport, although he will probably never use it or see it.

Congress has to decide what's in the national interest. Is recreation a part of it, national defense? If the Navy wants to get part of their fleet up the Columbia for maneuvers or something, that has to be figured into it. There's a number of system approach issues, but I don't see them clarified at this point.

Senator ABDNOR. Maybe Senator Gorton has a question.

Senator GORTON. The gist of your tesimony is that from the point of view of O. & M. that should remain a Federal responsibility, but the market is the perfectly appropriate method to determine where capital improvements are most needed in the country; and therefore, local cost sharing is appropriate, but is should be on a port-by-port basis rather than nationwide.

What extent do you think cost sharing is appropriate for capital improvements in ports? Twenty-five percent level, 50, 75, 100 or on the bid basis?

Mr. FORD. Well, it seems to me that until Congress decides how much of those additional capital improvements are part of the systems support, it's difficult to answer that question. In other words, if the dredging of Hampton Roads to handle coal is solely for the benefit of Hampton Roads in the judgment of the Congress, then they ought to pay for all of it.

On the other hand, if there's a national interest to the export of coal, then perhaps that ought to be part of a national system and some portion of that would be paid by the Federal Government.

I oversimplified it by using coal as the only reason you might have wanted to use Hampton Roads. But you understand what I'm driving at.

Senator GORTON. Should there be any changes in the determination of the national interest? Or, assuming that there's going to be a national contribution, say to the creation of a coal port, how should we determine which ports to improve for that kind of facility and which ports to contribute to?

Mr. FORD. Well, as a practical matter, it will probably be decided as it's always been. Whoever does the best job of selling to Congress, will probably get the project. But hopefully there would be criteria set up that would take into consideration the overall costs and efficiencies that could occur in one project versus another.

If you were using coal, again, you would logically go toward the port that is closest to the producing areas where there's a flow where you have a structure in place that can work against that, these kinds of considerations.

But I suspect there will be a large layer of politics mixed in with whatever system is used.

Senator GORTON. Thank you.

Congressman CLAUSEN. You alluded to my earlier remarks about the system versus the market approach, and then you also said, "until Congress decides." Congress can only decide on the basis of the best possible input from the users, those that will be impacted, those that have the basic interests in a good transportation system.

How can the Congress decide unless we do have that input? And if you were sitting in Congress, how would you decide that? By that I'm saying more specifically, defining what's a national interest, what's the State interest, what's the local interest and private and so forth?

Mr. FORD. Well, it seems to me that a number of the national interests, really the leadership has to come out of the administration and its bureaucracies. In other words, it's pretty hard for an average citizen to say what the national defense interest is. I mean, the experts are in the Defense Department. They have to provide the leadership.

If you get into recreational areas, for example, I think there's a lot of local recreational agencies that might have some input. There's a tremendous organization within the Federal Government that deals with those kinds of things.

The question of how does the overall system integrate in terms of the actual users is far more complex, and I doubt that you will get a very clear answer, because the user who comes into Seattle may not really care what happens on the Columbia River or at Stockton if that's not—in other words, how you mobilize those people.

Only if they have an integrated system that serves a number of these areas, would they be able to articulate very well, I think.

Congressman CLAUSEN. Well, we have had—when you talk about national leadership, the 205 study we requested came from a congressional initiative, and that directs the executive agencies to come up with some transportation policy recommendations as a result of the study itself.

Again, I'll get back to the things that we want to have as a result of these hearings, and that's input from people like yourselves, not generalizations. Because the national interest is very broad. But we need to have more specific input from people in this section of the country as to what they believe represents the national interests as we were to define some of the direct users or the indirect users as in the case of fees, and then what do you believe represents the State or local sponsor interest.

And then, putting together the best possible measure, that we end up with hopefully a system that will meet the market requirements and, in fact, what's bad for the market requirements in some of these areas.

Mr. FORD. Well, Congressman, just one comment. I think that this issue would be greatly simplified if Congress would pull out of the bay at this point in time the issue of the maintenance and operation of the currently authorized projects and how they would be impacted.

One of the difficulties you have, just from a practical situation, nobody wants to put their foot in as to the existing facilities that they absolutely rely on life and death in their case. I think that as long as that's hanging over their head, you're just going to have a rear guard battle, because these people are very, very concerned about what the impact is going to be, and we are concerned up in Seattle.

While we are a deep-water port and the impact of whatever you do will not be serious in our case as far as our actual operation, the impacts on the economy of the State will be different, as stated. If there is a precipitous application of heavy user fees on the Columbia/Snake River tributary system, I don't think if they get enough railraod cars to get into Seattle and Tacoma--we haven't got the elevator capacity to handle it. So you just might as well forget about it. We're putting grain on the ground now. There will be a lot more if they have a precipitous kind of user fee.

Congressman CLAUSEN. I don't think you have to be concerned about anything precipitous happening. I've gone through six administrations, and there's not too much precipitous action I've observed. And there's a kind of a check and balance on the congressional side. We're a separate branch, and the very fact we're out here shows we are looking at it. There won't be anything precipitous.

Senator ABDNOR. Thank you Mr. Ford.

STATEMENT OF LEWIS HOLCOMB, EXECUTIVE DIRECTOR, WASHINGTON PUBLIC PORTS ASSOCIATION

Mr. HOLCOMB. Thank you, Mr. Chairman and members of the committee. Also on our panel this morning to be heard from is Henry Soike, manager of the Port of Grays Harbor, Bill Herder, president of the Oregon Public Ports Association, and Bob Peterson, manager of the Port of Ilwaco, at the mouth of the Columbia River.

I'm Lewis R. Holcomb, executive director of the Washington Public Ports Association. My residence is in Olympia.

I regret I don't have a prepared statement for you at this time. I did have one, but I modified it sufficiently this morning that the copy I had would not at all be appropriate. So if I may give a verbal statement for a moment, I will make certain, then, that I send a copy in to your committee staff for the record.

Senator ABDNOR. Very fine.

Mr. HOLCOMB. We're all aware of the proposed legislation we are here to discuss this morning, and it's my belief that you are going to get a good deal less than unanimous support for such legislation, as you have already found. But through the association and my association with the various members of the group, we have come to some certain common conclusions that investment by the Government in waterways development has helped reach many worthwhile national goals over the years.

The efficient water transportation, which was enhanced by public financial participation, brought the country together when there was very little other transportation. Exports have increased, agricultural industry incomes have grown, thousands of jobs have been created by the effective waterway system. And the result of the workers' productivity in those various areas have moved in domestic and foreign commerce through the waterways that have been financed by all the people, and all the people benefit from such waterways.

Now, this proposal that we are addressing here today actually abrogates more than 150 years of traditional financing system. That's exactly what it's doing, to turn the back on the Nation's historical knowledge that's been in the forefront of most people's mind for many, many years; and that is, that a person in Utah, Kentucky, South Dakota has a share in and benefit from our fine waterway system whether it's located in Portland, Oregon, or Seattle or Stockton and Sacramento.

This proposal would go even further. It says establish a user fee to get the Federal money back, and the user fee they talk about is the fee on the ships, on the vessels, which seem to be more appropriate and likely, if anybody would consider that, to talk about a beneficiary fee. This addresses what Representative Clausen was talking about earlier.

Because what the proposal is currently says that only the vessels owners and the vessel and the shippers benefit from the use of a waterway so they have to pay for it all. Well, how about the man who sells the trucks to haul the grain form Montana to Lewiston? He benefits from the Port of Portland waterway. How about the man who gets a job in a coal mine in Wyoming or someplace else to dig the coal that will be exported from Kalama? Doesn't he benefit from the fact that we have a waterway going to Kalama?

How about the guy that owns the coal mine or a railroad? Where is his fair share? Under the current system of financing our waterways; that is, the tax system, everybody does pay a fair share. Maybe some a little bit more than others by virture of their income tax and so on, but the beneficiaries of the waterway systems are the Nation's public, are the Nation's people. And currently, under that system, they are paying a fair share.

Actually there's a certain commonality in some of the views of our member ports in the organization I represent. The deep concern is that this system that is being proposed would seriously affect the inplace transportation system. And they don't feel yet there's been enough consideration and homework by the administration in giving attention to the potential detrimental impacts, and there are differing opinions as to certain aspects of the administration proposal, and those port officials that are here today will bring them out in their testimony as Mr. Ford has earlier. Thank you, Mr. Chairman.

Senator ABDNOR. Thank you.

STATEMENT OF HENRY E. SOIKE, GENERAL MANAGER, PORT OF GRAYS HARBOR, WASHINGTON

Mr. SOIKE. Mr. Chairman, members of the committee, my name is Henry Soike, and I am the manager of the Port of Grays Harbor on the coast of the State of Washington. I have a prepared statement that I would appreciate having placed in the record and would like to comment on the record in the reserved time.

In 1965 our port district sought Federal assistance to evaluate the feasibility of increasing the draft of the depth of our harbor from 30 feet to 40 feet. In 1976 a feasibility study went forward to Washington, D.C., with a projected cost of $47.5 million. The Office of Management and Budget returned that feasibility study to the corps and asked for further study.

In 1980 those costs had increased to $75 million. But, fortunately, we still have a favorable benefit-to-cost ratio, and that project and final feasibility report should go forward before 1982.

In 1972 senators of our State of Washington urged the Port of Grays Harbor to become involved in an estuarywide management plan and to involve Federal agencies who have need to know what the conservancy conditions would be in the estuary, and we had a need to know what the permitting opportunities for economic development would be.

That plan has progressed and will be finalized in 1982. It's interesting to note that the Office of Coastal Zone Management will write a NEPA statement that will include memorandums of understanding by the Federal agencies involved. But I've attached to my statement an exhibit which indicates the 13 Federal acts which have impacted this study process and also Executive—four Executive orders that impacted that planned process. All but two of those have been passed since we got into the planning process.

So we are concerned about the decisions of Congress and where they will cut off projects. Is this a new project or an old project? We happen to think it's an old one, because it was started in 1965.

I'd like to comment briefly on the timber lands that are tributary to the Port of Grays Harbor, some of the finest timber growing lands in the North American continent, and in those timber lands are substantial Federal forests. I've attached to my statement an exhibit which indicates that the average stumpage for sawn timber sold on national timber forests has increased from $41.90 a thousand in 1970 to $432.20 in 1980 on Douglas fir. That tenfold increase also applied to western hemlock, and it's attributable to the fact that ports have provided facilities to let this material and these timber products get into domestic and world trade.

Legislative considerations to impose user fees mention credits for national defense. Well, the Port of Grays Harbor became involved in handling ammunition after the Port Chicago disaster in World War II, and we have noticed tremendous shipments of lumber moving out in the various world conflicts that have occurred since that time.

During the deeper draft study periods from 1965 on, the local interests, public and private, have kept faith with the Federal partnership and have constructed five modern terminals, and these are in place at a cost of $4 million and can accommodate larger vessels and we hope will go to the deeper draft project.

The Washington Public Ports Association has completed and updated its 1975 port systems study, including trade forecasts through the year 2000. This study indicates that the commerce, marine, in the State of Washington will increase 2½ times by the year 2000, and it indicates that additional berths will be required in all of the port facilities in the State. The Port of Grays Harbor has identified the capability of handling coal and grain to the estuary management planning study that I previously mentioned.

The issue of coal has been discussed here today, and many people are wondering where the movement of that product will occur. I have heard a lot of knowledgeable people state that coal export facilities must be located where there are two railroads. If you look at a railroad map, you will realize that that opportunity for railroads occurs in very limited areas in the Northwest: Portland, Oreg., the Washington ports on that side of the Columbia River, Grays Harbor. It occurs also in Puget Sound as far north as Seattle.

And ports of Seattle and Tacoma have indicated that they do not have the capability to handle coal. The only viable sites on Puget Sound are privately owned sites between the Nisqually Delta and Tacoma and in the Steilacoom area south of Tacoma, zoned conservancy under our State estuary management, State Shoreline Management Act.

Private environmental groups have recently stated that permits for coal export facilities may be the battle of the decade, and I believe that they are right. We have the opportunities on Grays Harbor to handle these commodities, and we are impressed that the Congress will make a decision that will be favorable to the ports and their operation in the future. Thank you.

Senator ABDNOR. Thank you very much.

STATEMENT OF BILL HERDER, PRESIDENT, OREGON PUBLIC PORTS ASSOCIATION

Mr. HERDER. My name is Bill Herder. I am a port commissioner for the Port of Newport and also serve as president of the Oregon Public Ports Association. My testimony today will be on behalf of the association. I will summarize my written statement providing that we realize that those omissions are not minimized by me leaving them out of the testimony.

For Oregon's 23 port districts, the Federal waterway and cost recovery plan proposed by the Federal administration is of great concern.

Statewide, the total impact on jobs and payrolls in port communities tied to port activities is estimated at close to 60,000 jobs and close to $1 billion in annual payrolls.

I will not outline the diverse functions of Oregon ports for you to emphasize how critical Oregon ports are to the total economic health and stability of the State and the region, and to emphasize the possible adverse effect which would result if ports were unable to respond adequately and economically to their users' needs and demands.

The Oregon Public Ports Association has reviewed the Federal administration's proposals for future financing of the Nation's rivers and harbor systems, as embodied in Senate bill 809 and Senate bill 810 now before the U.S. Senate.

The association understands and sympathizes with the reasoning of the administration's cost recovery objectives. However, Oregon Public Ports Association finds these proposals, based on waterway user charges and Federal cost recovery for maintenance of the waterways system entirely from local sources, are objectionable and potentially very detrimental to Oregon ports and the State's economy.

We view the administration's proposals as creating preferential treatment for ports and waterways with low maintenance needs and high commercial traffic.

If local participation in the cost of maintaining waterways is to be introduced, Oregon Public Ports Association believes that the principles for cost recovery contained within Senate bill 1586, introduced by Senator Mark Hatfield of Oregon, come near to representing what we believe should guide the Federal Government in the development and maintenance of the national waterways system.

Senator Hatfield's proposal represents a workable and equitable approach. The bill would place a uniform tonnage charge on international cargo. The tonnage proceeds would be shared from the Federal level among all U.S. ports for maintenance costs.

For new deep-draft waterway projects, local entities would have to cover 50 percent of the total cost through local user fees. We believe this alternative concept addresses our concern about preferential port treatment and selective economic dislocation.

While agreeing with the principles set forth in Senator Hatfield's bill, the association does urge clarification of several specific areas not yet addressed in detail, which would be of importance to both Oregon and Washington ports.

Subject to the development of responses to these and other details of the bill, the Oregon Public Ports Association urges support of Senate bill 1586 as an alternative to the approach contained in Senate bills 809 and 810.

I thank you for this opportunity to allow Oregon ports to express their concerns and opinions.

Senator ABDNOR. Thank you, Mr. Herder.

STATEMENT OF ROBERT C. PETERSEN, MANAGER, PORT OF ILWACO, WASHINGTON

Mr. PETERSEN. Mr. Chairman, members of the committee, I am Bob Petersen, manager of the Port of Ilwaco, Wash., and I am currently president of the Pacific Coast Congress of Harbormasters and Port Managers.

The Port of Ilwaco is a small port located just inside the mouth of the Columbia River. Ilwaco is connected to deep water on the Columbia River Bar by a Corps of Engineers maintained channel 3 miles long and 10 feet deep. Our boats are engaged exclusively in the recreational and commercial fishery.

The Pacific Coast Congress of Harbormasters and Port Managers is made up of 39 member ports in the coastal fishing areas of Alaska, Washington, Oregon, and California. Many of these small craft harbors were built during a program designed to establish harbors of refuge at regular intervals along the coast. Some of these were more expensive to build and maintain than others, but they are all serving their purpose as places of refuge from the weather, plus fish buying and processing firms have established plants at these harbors providing at least partial economic return on the Federal investment and enabling shorter runs for vessels to and from the fishing grounds. The concerns I express here today apply to both the Port of Ilwaco and to the member ports of the congress.

The primary economic activity in most of these ports is the salmon fishery. Environmental degradation and legal decisions concerning allocation of 50 percent of the salmon to certain groups of citizens have resulted in severe quota limitations and have made the fishery less than marginal economically.

A growing industry is the offshore trawl fishery which has been made possible to a large extent by the Magnuson Fisheries Conservation and Management Act. This fishery is suffering from rising costs and soft markets due largely to competition from lower priced imported fish. In order to be competitive, it will be necessary to go to larger, more efficient vessels that will require deeper channels and improved facilities.

If a waterway user fee were to be assessed on port-by-port basis, the highly mobile commercial fishing vessels would deliver their catch to the ports that have the lowest maintenance costs and consequently the lowest fees. The ports with lower fees would experience an excessive demand on their facilities and the remaining ports would end up with underused facilities.

There would be fewer boats to split the fees, and consequently higher costs per boat. There would also be a drop in employment in port and fishery related jobs, resulting in a greater demand for social services and possible default on port revenue bonds. It is unclear if the user fees would be imposed on recreational as well as commercial users, but charter fishing boats are classed as commercial passenger carrying vessels and would have to absorb the fee out of the existing charges.

If the fee were to be imposed on a uniform national basis, the port-by-port dislocations would be avoided, but if the fees were charged on some basis that the vessel owner or fish processor had to pay, the result would still be an increased cost of fish, making our domestic product more expensive on the supermarket shelves, enhancing the sales of imported product and making U.S. caught fish less competitive in world markets.

Due to reasons beyond the control of American fishermen and processors, at the present time the industry just cannot stand the increased costs that the user fees would bring about. The fishing industry is a vital part of our national economy, though, and deserves the support of Government.

If the coastal fishing ports should be exempted from any fees imposed on inland waterways and deep draft ports, we are concerned that when the time comes around for allocation of funds, that we would receive even less than the present inadequate level. We understand that Senator Hatfield's bill will be amended to include shallow draft coastal ports in the waterways trust fund. If so, that should be an adequate solution.

Other than that, we don't know what the answer is except to reiterate that we presently have a good system that is working well. As President Herbert Hoover said in 1929, "Investments in the Nation's waterway system are not local in their benefits. They are universal in promoting the prosperity of the Nation." These words are still true today.

Asking us to choose between a national user's fee, a local user's fee or no fee and no maintenance funds is like asking a condemned man if he prefers to be shot, hanged or starved to death.

Thank you very much.

Senator ABDNOR. Thank you. Let me ask some of you gentlemen, apparently you are saying that the ports today are adequate for what you need, or are you suggesting that new construction go on like it has been in the past, Government paying the bill? Some of you are saying, "Leave me alone, and we'll get along fine."

Mr. HERDER. No.

Senator ABDNOR. Are you going to need deepening of your ports, or shallow draft ports where there is little or no commercial cargo traffic—does that mean they don't need deepening?

Mr. HERDER. Senator, the Port of Newport has a cost recovery of $2 million a year. There hasn't been a freighter in Newport in a year. We don't have a commodity. The Government has $50 million invested in deepening that harbor for commercial cargo, and there isn't a commodity to ship out.

Now, we have to be dredged to bring fishing boats in to maintain a safe harbor just even for the Coast Guard.

Senator ABDNOR. How deep is your harbor?

Mr. HERDER. We have a 40-foot bar and a 35-foot channel.

Senator ABDNOR. Is that what the fishing boats require?

Mr. HERDER. On the Oregon coast and the Washington coast as well, excluding the Puget Sound area, the depth determines how rough the bar crossing is. We have a relatively safe bar because of the depth and the jetties. If it were allowed to sand-in to a shallower depth, there would be a tremendous loss of life and a tremendous loss of fishing vessels.

The Port of Newport would not be able to assess its users $2 million a year. I think we'd be faced with removing the Coast Guard from Newport, which would be detrimental to all shipping and all water users, but we couldn't afford to pay a million dollars a year for that privilege.

Senator ABDNOR. How deep, does it require for a fishing industry?

Mr. HERDER. There are fishing ports that have shallow-draft, 20-foot bars, 15-foot channels. But depending on the sea, they are not able to utilize that bar if it's rough. We have probably the biggest fishing fleet on the Oregon coast in the Newport harbor.

Senator **Abdnor**. I believe it was you that said in your initial statement that everyone benefits, I guess we'll have to agree, indirectly. There's a lot of benefits. Is that you that said that?

Mr. **Holcomb**. That's my point of view, yes.

Senator **Abdnor**. Don't you think there are direct benefits to those that use it more than others? What we are hearing in the committee is the amounts of ports that are going to be required for the coal industry, and frankly, a lot of the cities just want to deepen their ports. I don't think there's any way in the world this committee or Congress could ever find the moneys to fund it.

I think we are moving to a different concept of funding, that the people that are using it should pay more. Do you think we could separate the beneficiaries out in some kind of a formula if we come up with one? That's what we are searching for. It then would be a little more acceptable to allow for the benefits that are derived from irrigation, flood control, and recreation? Do you think that would be just a little more acceptable?

Mr. **Holcomb**. Well, Senator, I'm not so sure that I could say it would be more acceptable, simply because we have to go back, again to the 150 years ago and all the time subsequent to that when the current financing system has been maintained.

Senator **Abdnor**. That's fine. When we are a trillion dollars in debt and a big item is interest, we've got to think a little different. The farmers are getting hurt more by inflation than by increased costs of shipping if you want to get right down to it, we've got to put everything in proper perspective here and try to find some answers.

Obviously, what we've been doing in the past hasn't been altogether good for this country, or we wouldn't find ourselves in the problems to have today.

Mr. **Holcomb**. I have to admit that all of the programs that have been funded over the past number of years have not been beneficial. It's rather easy to read the newspapers and see the deficit forming just as you indicated. But separating all of the beneficiaries from the users and the users from the beneficiaries and getting it down to an equitable system one by one, man by man is an impossible task.

So, as I say, considering the amount of dollars that have been necessary over the course of the years to maintain the existing system, that's not really a great burden on the taxpayers of the Nation to take care of that. It's less than $400 million, which how much is that in this year's budget and how much is that per capita, and how much is the benefit to the little lady in Sioux City, Iowa? She pays taxes, too, but does she not benefit by an equal amount? I can't prove that to you that she does.

Senator **Abdnor**. That's the thing we're trying to figure out here, and we'll give it very careful consideration as we try to break down the beneficiaries and try to find the necessary funds, because we're talking about construction of all projects. We have $50 billion worth of authorized projects that haven't even been started yet. We've got demands for locks and deepening of the ports, and I guess it's just a matter of trying to find how to put it all together and where we find the money.

We need all the help on this we can get, so we do appreciate your help and your testimony very much. I don't mean to suggest that we're not interested, because we are. We've got a tough job ahead of us in trying to find out how to make it all come out.

Senator **Gorton**. Mr. Herder, you spoke about what I believe was a $2 million a year cost to the port in Newport, and it's perhaps typical of some of the coastal ports that don't have major international trade. Was that $2 million all inclusive, including the Coast Guard?

Mr. **Herder**. Yes.

Senator **Gorton**. How much would be the subject of the hearing that we are having here today? What would be the cost to Newport if it were required to pay 100 percent of the operations and maintenance of the dredging or the port?

Mr. **Herder**. It's about a 50-percent cut. I think about $1 million a year.

Senator **Gorton**. Would fall into that category?

Mr. **Herder**. Into maintenance and dredging, a million dollars Coast Guard operations, and navigational aids was another million dollars, and it's close.

Senator **Gorton**. And would your statement be the same that the Port of Newport, through user fees, simply could not accommodate the million dollars a year for operations and maintenance by charging the boats which are the users of those facilities?

Mr. **Herder**. That's correct.

Senator **Gorton**. In this sense, I suppose I have the same question for you that I did for the river panel. At what level do you expect it would be just appropriate for the immediate users of the Port of Newport to contribute to the maintenance of that port? What low amount?

Mr. **Herder**. Looking into the future, I would hope that we have a turnaround in our economy, which would bring back deep-water shipping about the Newport harbor. Then we would participate in that cost. I think that the only fair and just way of recovering costs for harbor maintenance necessary to the economy of the United States, not just individual ports, would be through Senator Hatfield's bill. I think it's a very fair and equitable approach.

Now, there is a question as to whether it puts us in a competitive or noncompetitive market internationally. Perhaps we should take a hard look at adding a surcharge or a tariff only on the import. Now, that would have its ramifications, too, I'm sure. But I don't know that that approach has been explored, and I think it would be a worthwhile thought.

Senator **Gorton**. Mr. Peterson, could I ask you the same question as far as Ilwaco is concerned? What's the cost at the present time to the maintenance of that port?

Mr. **Petersen**. It varies a bit, but in the neighborhood of $100,000 to $200,000 a year. We are much shallower.

Senator **Gorton**. Would that port be in the same position as the Port of Newport?

Mr. **Peterson**. I made an estimate as to what the cost would be per pound of fish delivered, and although we have a very high tonnage of fish, it would amount to some 5 to 10 cents per pound increase in the wholesale price of fish. And the large volume is the lower cost rockfish and the bottom fish filets that are going on to the market these days.

And with wholesale prices currently around 80 or 90 cents, a 5- to 10-cent change in that is a very significant competitive factor. And on the charter boats, if they had to take their share of it, it would amount to $2 to $4 per head. And the charter boat business has been dropping off at such a rate lately that I doubt very much if we'd be able to pass this along to the users.

Senator GORTON. Again, I would ask the question that I did of the other Columbia River interests. If there were a ceiling on that, instead of being 5 or 10 cents a pound, it were 1 or 2 cents a pound, would that significantly affect the costs in the Port of Ilwaco?

Mr. PETERSEN. Everything has an effect, you know, and if you get it down low enough, I suppose there's a point where it could be absorbed or it could be passed along. And I'm not that familiar with the marketing end to be able to say what that point is. But, yes, I suppose there's a point.

Senator GORTON. Mr. Soike, in your case, that leads to one of the major thrusts, which is improvement that is sought. And as you know, from the time of authorization until actual construction in many of these facilities, it has been measured not so much in years as in decades in some places from time to time. Do you have any views on the differing effects of operation and maintenance fees, which these other two gentlemen have been talking about primarily, and capital construction fees with the Port of Grays Harbor, the people and organizations which it serves, or would the people and organizations which it serves be able to accept any significant percentage of local contribution to capital improvement of that port as opposed to operations and maintenance?

Mr. SOIKE. We have evaluated the costs of maintaining the Grays Harbor estuary for the past 6 years. Those costs run from a low of $2,661,000 to a high of $5,328,000. And if you convert that into cost per ton in the cargoes that move out of Grays Harbor, which are in the range of 2.2 million up to 4.2 million, you will see a cost per ton reflected there of a low of 64 cents in 1 year to a high of 188 cents.

Senator GORTON. That wasn't the thrust of my question. I'm assuming at this point there isn't going to be a significant change in funds. I'm talking simply about the deepening of the port, the capital improvement to the port. Would the Port of Grays Harbor be in a position or the users be in a position to contribute significantly to capital improvements as opposed to O. & M?

Mr. SOIKE. I think there is an opportunity. I doubt if there is an opportunity with the existing commodities that we are handling.

Senator GORTON. It would have to be in connection, then, with the potential of the coal and so forth?

Mr. SOIKE. Yes.

Senator GORTON. Thank you.

Senator ABDNOR. Mr. Soike, while we are on that subject, I was looking at your testimony when you said in 1970 the average stumpage for sawn timber went from $41.90 to $432 in 1980 and fir went from $20 in 1970 to $208 in 1980. That's a thousand percent increase. I mean, the lumber business couldn't afford to pick up any additional costs. Is that what you are saying?

Mr. SOIKE. Well, those are substantial increases in the stumpage that's paid to the Federal Government and goes into the general fund. The domestic lumber industry is greatly depressed at the present time, and whether they can assume some additional costs for marine transportation is, I assume, something that can be evaluated.

I would point out, however, that if those charges are assessed on a segmented basis, you will see cargoes from Grays Harbor going from Grays Harbor to other ports that don't have charges. And it will be a catch 22. The more you divert it, the higher the user fee will be.

Senator ABDNOR. We are trying to figure out how to solve this whole problem.

Congressman CLAUSEN. I want to have a kind of a summary of what I think I hear. A common thread through all of your testimony is that you are seeking a measure of uniformity, and, in fact, an emphasis on a system of harbor approach as contrasted with the port development. Is that essentially the common thread that runs through this?

Mr. SOIKE. That is our position. I believe that Mr. Ford expressed an opposite view.

Congressman CLAUSEN. Now, if you were trying to arrive at a policy and decision, and you had to make a decision as to whether or not the emphasis for Federal participation should be on the construction side or the O. & M. side, what would be your choice?

Mr. SOIKE. O. & M.

Congressman CLAUSEN. Is that——

Mr. HERDER. O. & M.

Congressman CLAUSEN. Is that the same? That's because you have your facilities in place?

Mr. SOIKE. That's correct.

Congressman CLAUSEN. Well, I think your testimony has been very helpful, and I also gather the thrust of your testimony, the common thread, seems to be supporting of the funding mechanism as proposed by Senator Hatfield in his bill; is that correct?

Mr. SOIKE. That's correct. We, at the Port of Grays Harbor, have endorsed Senator Hatfield's bill in a position that I believe will be submitted later today by Melvin Shore of the Port of Sacramento.

Congressman CLAUSEN. OK. Thank you.

Senator ABDNOR. Thank you, gentlemen. I appreciate that. Mr. Soike, how many primary users do you have in your port? Lumber, isn't that right?

Mr. SOIKE. It's primarily lumber and logging.

Senator ABDNOR. How many users?

Mr. SOIKE. We have Weyerhauser, Boise-Cascade, and we also have some major local processors, Mayer Brothers, Anderson Brothers.

Senator ABDNOR. Thank you.

Mr. SOIKE. And there are public and private owners.

Senator ABDNOR. Our next witnesses are two outstanding Congressmen, Norman Dicks and Ron Wyden. I understand Congressman Dicks is under a real time problem, so we'll let you start off.

STATEMENT OF HON. NORMAN D. DICKS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Congressman DICKS. Thank you, Mr. Chairman. I'm glad to be here with my colleague from Oregon, although we may have slightly different views on this particular issue.

I do think it's rather symbolic that all the Republicans are up there, and all the Democrats are down here. I'm also glad to see my colleague from California who I have worked with on many projects and have the greatest regard for.

Mr. Chairman, Senator Gorton, and my colleague Don Clausen, it is indeed a pleasure to be here today to testify on issues of profound importance to the port industry of this State and the Nation. Specifically, I intend to address my comments to two legislative proposals which I oppose as introduced: S. 810 and its companion H.R. 2962, which proposes to allow the Corps of Engineers to levy a variety of user fees on inland waterway users in order to recover all capital and maintenance outlays on inland waterways; and S. 809 and its companion H.R. 2959, which similarly mandates the recovery of all capital, operation and maintenance costs assignable to commercial transportation through deep-draft channels.

Coming from the Pacific Northwest, my concern is chiefly with the Columbia/Snake River system, one of the Nation's most important waterway systems, and the Port of Tacoma. Allow me to address first the issue of increased user taxes on inland waterways.

There are 19 port districts on the navigable shallow-draft portion of the Columbia/Snake system. The largest is the Port of Portland, one of the highest tonnage export ports on the west coast. There are also many active ports further upstream. In fact, during calendar year 1978, 7,527,918 tons of various commodities moved through the Bonneville lock. And, by the way, I'm one of those who support efforts to expand the Bonneville lock in order to improve the system on the Columbia and the Snake River.

During the 1980 calendar year this increased to 8,931,354 tons and recent studies indicate the total tonnage moving through the Columbia/Snake River system will continue to increase.

However, if this proposed legislation is passed, the resulting increase in transportation costs will render our exports less competitive on the world market and will, in effect, reduce our current volume of port-originated exports. Recent estimates indicate, for example, that as much as 4 to 5 million tons of ocean-going cargo from Columbia/Snake River ports will be lost if S. 810 is passed as presently written.

This dropoff in cargo could mean a loss of $750 million to the Pacific Northwest economy and potentially 15,000 of 99,000 port-related jobs. For a region already reeling under the impact of double-digit unemployment and interest rates affecting the homebuilding and forest industry, this loss could be devastating.

Finally, it appears that the administration justifies this imposition of increased waterway user fees on the grounds that the individual waterway users are the sole beneficiaries of this national resource. On the contrary, a fuel efficient waterway transportation system providing low-cost transportation for grain, coal, and other export commodities obviously benefits the entire Nation through reduced commodity costs, improved balance of payments, and reduced inflation through competition in the transportation sector of our national economy.

As the Congressman from the Sixth Congressional District representing the Port of Tacoma, one of the finest natural deep-draft ports in the world, and other deep-draft ports, I am also concerned about the effects of S. 809 and its companion H.R. 2959 as proposed.

This proposal would greatly alter the traditional system of financing port development that has existed for over 150 years. It ignores the historical reason behind Federal involvement in port development: That all consumers and taxpayers across the Nation benefit from an efficient port and water system.

I am also very concerned about the economic ramifications of removing the Federal Government from maintenance and operation of existing authorized projects.

At present there is no analysis available on the impact this bill would have on U.S. exporters or the possible economic dislocations which might occur. For instance, can we gage how much trade will be diverted to ports in Canada and Mexico which have no user fees and the resulting impact on domestic port-related economies? I believe that we must estimate as accurately as possible the effects of legislation of this nature before we move ahead.

Finally, I am not sure that the imposition of a nationwide user fee is the best way to promote increased local participation in public port and waterway development. The objective of any Federal legislation must be to grant local interests the burden of proving the economic viability of all port improvements through direct financial involvement. The imposition of a national user fee may short-circuit this objective. I believe we must examine this proposal further.

Mr. Chairman, Senator Gorton, Congressman Clausen, I understand the phenomenal cost of port and waterway maintenance, operation, and development. As a previous member of the House Appropriations Subcommittee on Energy and Water Development, I am familiar with the fierce competition by port districts over limited Federal funds. Due to current budgetary restrictions, this subcommittee did not provide funds for any new corps projects in fiscal year 1982. This situation cannot continue. Some form and level of port and waterway user fees may be necessary for the continued efficient development of this vital transportation system. I leave that determination to the proper House and Senate authorizing committees.

However, I do believe that we must not act in haste without knowledge of the facts. The port and waterway user fee issued must be viewed in a broader perspective than simply to immediately balance the budget, in light of their impact on the development of an important transportation mode on regional commerce, international trade, and even our national defense, which depends on a viable merchant marine.

I am pleased, therefore, that you have provided interested parties in the Pacific Northwest with the opportunity to voice their concerns to you today. I hope that testimony received here and elsewhere will provide the committee with sufficient information to develop a workable program for the continued development of an efficient port and waterway system across the Nation.

I might add that I am aware of the section 205 study that's under way. In my view, it would be appropriate for Congress to wait until that study is presented in September and then to take a look at it and get the best economic advice we can before we proceed into an area that I think could have a tremendously adverse impact on the economy of the State of Washington and the Pacific Northwest.

I'm very concerned that we do nothing that will impose further burdens and difficulties on those people who are trying to export products from this country right when our own economy is in such bad shape and we have a balance-of-payments problem in the world. We've got to be doing things to expand exports, not to stand in the way of it. And I'm afraid this kind of legislation is going to make it more difficult to export, and thus, will have an adverse effect on our economy.

But I appreciate this chance to be here with my colleague from Oregon to testify.

Senator ABDNOR. Well, thank you, Norm. We certainly were looking forward to your testimony. We know you have had lots of experience in serving on these committees and trying to find the necessary funding.

[Brief recess.]

Senator ABDNOR. Norm, you were talking about this study. We're trying to get as much of the facts as we can. You referred to an estimate of volume of originated exports, as much as 4 to 5 million tons of ocean-going cargo on the Columbia/Snake River.

Congressman DICKS. Yes, grain exporters.

Senator ABDNOR. How did you come up with that? We'd like to have it.

Congressman DICKS. I'll give it to you. It's the Grain Transportation Consultants of the Pacific Northwest in a letter to me of July 17, 1981. I would be delighted to make a copy available to the committee. It came out of their expert testimony.

Senator ABDNOR. The whole problem boils down to——

Congressman DICKS. It's a five-letter word, isn't it, m-o-n-e-y? Isn't that the problem?

Senator ABDNOR. That's right. And we know how we funded them in the past, but we are also, just in general construction of water projects, $50 billion behind right now. And I guess we've seen nothing yet with the demand coming up for deep-water ports because of the coal industry. Everybody wants a deep port, and I guess we just can't put them all over the United States for everyone that asks for one. We're trying to figure out some way to come up with some kind of a system that will take care of the U.S. needs in both exports and imports, and that's where we find ourselves.

Congressman DICKS. I think if you get into that, you're in big trouble. I think separate that out right away. O. & M. should be financed by the Federal Government, I believe. I believe it's absolutely in the national interest to maintain our existing port system.

All kinds of decisions on facilities were made on the basis that the Federal Government would be taking care of this part of the responsibility. When you talk about new projects, then I think you can change the ground rules, because you are dealing with it in a prospective basis. Then I think you can ask the ports to make some contribution. I don't think that's out of the question.

Trying to find the reasonable level is something that these hearings should help you decide upon For example, on a project in the Port of Tacoma, just a replacement. Blair-Steilacoom Waterway project was the first project that was cleared under the so-called Carter criteria, which called for the Port of Tacoma to make a contribution, a matching contribution. I think it was, in that instance, 10 percent of the project. So I think that there is room there on new projects to get some contribution.

I'm worried that if you go back and try to do it on O. & M. that you're going to get yourself into such a morass that it's going to defeat any chance of coming up with a program.

Senator **Abdnor**. Would you include the deepening of ports as part of new construction?

Congressman **Dicks**. If it's over 45 feet or something of that nature. I think the Port of Seattle has said on one issue they understand that widening and deepening could be considered a new project and, therefore, subject to some kind of shared cost. And it seems to me that's fair.

But maintaining the existing system, I think, is in the national interest. I worry, because I served on the Public Works Committee for several years, that we haven't had a public works bill. And a lot of things are being—you know, we're not moving ahead now. We're falling behind. And I'm, worried that we're going to adversely affect our competitive position in the world as our ports have increased difficulties operating because of the lack of these improvements.

And I can point to the chapter and verse in the Port of Tacoma where projects have been deferred for years now. The cost goes up. I don't think that's addressing the problem.

Senator **Abdnor**. Norm, there were a lot of witnesses before on your committee in Washington where New York offered to pay their own expenses.

Congressman **Dicks**. We paid a lot of New York's expenses already. Maybe it's time for them to pay a few of their own.

STATEMENT OF HON. RON WYDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Congressman **Wyden**. Mr. Chairman, I appreciate the chance to be here. I kind of feel like a guy coming to the plate after a home run has just been hit.

It's a particular pleasure to be with your distinguished panel. I'd like to compliment you and our colleague, Senator Gorton, in particular for bringing this hearing here so we could have it in the Columbia River basin. I don't think there's any single waterway that better illustrates the problems of waterway user fees than the Columbia/Snake River system.

I'd like to add, as a personal note, Mr. Chairman, it was a real pleasure to join you as we flew yesterday over the port facilities in the Portland-Vancouver area as well as the Bonneville lock. I think that what you saw is firsthand evidence of the reliance our region has on waterborne commerce, the opportunity we have for expanded trade and jobs, and the critical need to remove the bottleneck at Bonneville that is preventing the Columbia/Snake River system from becoming one of the world's greatest waterways.

I think you also saw firsthand evidence of why I chose to make the very first bill I've introduced in Congress a measure to add a second, modern lock at Bonneville. Estimates are that it would generate $500 million with a private investment in our region and, in particular, will open a gateway from major inland areas to the transportation hubs in the Columbia River.

I think the other thing the flyover yesterday may have shown is that the Columbia/Snake River system and the rail lines and highways that parallel its course are the lifeline for eastern Oregon, eastern Washington, Idaho, all the way through the upper Great Plains States. The waterway is the only sea level route through the Cascade range in the Northwest and is clearly the economic lifeline for bulk, low-value commodities such as grain, fertilizer, and coal.

It is also a major link between the resource-rich Pacific Northwest and the resource-poor Pacific rim nations, and therfore it is internationally significant.

I think it's equally obvious that the first explorers and settlers in the Columbia basin—like those first settlers, the Northwest residents today are going to depend on expanded trade. Our best opportuity for trade is in the field of transportation and, in effect, moving cargoes great distance at economical rates. Quite literally, if residents of our basin are to reach their full potential, the Columbia/Snake River system is going to have to reach its full potential.

I think, without giving you a filibuster, I'd just like to highlight five particular points in my testimony.

The first is that as bad as we need to cut Federal spending to balance the budget, lower interest rates and curb inflation, we also need to deal with the problem of beefing up our industrial infrastructure if we are going to reindustrialize this country.

I, personally, am going to vote for budget cuts that equal President Reagan's figure. At the same time, I'm not going to vote for those at the expense of our industrial base. It doesn't seem to me to be the time to emasculate our industrial base. We ought to build it up.

The Joint Economic Committee of Congress, in its 1981 midyear report on productivity made this point loud and clear, they said:

> Private sector investment thrives best in the context of an adequate and well-maintained infrastructure. Proper macroeconomic policies or a well-designed capital depreciation program will not have a maximum effect without proper highways, ports, railroads, bridges, satisfactory water systems, utilities and the like.

The report then went on to say that Government investment in our infrastructure has actually declined during the 1970's and can be viewed as a function of our country's declining productivity.

Now, all of you want to see Americans go back to work, It just seems to me the jobs aren't going to be around unless we make those adequate investments in the infrastructure that triggers our ability to create jobs.

I also fail to see the economic prudence of jeopardizing decades of public investment in waterways by placing them all at the mercy of possible future private investment. That's not good business in a literal business sense, and it's even worse public policy.

The second argument I'd like to make is there's been a historical partnership between the Government and users to build effective transportation systems in America, and that partnership, for the most part, has worked. Do we really want to, at this point with the economy being in the shape that it is in and, in effect, can we afford to, tinker with those kinds of success? I don't think now is the time to do that.

Harbors and ports have been important to this country since its founding days. That's why they are mentioned several times in the constitution. That's why the Federal Government has provided port and harbor improvements since 1824.

In the last 150 years, Federal moneys have transformed rivers, inlets, and estuarine areas into our waterways, harbors, ports, and job-creating areas. Today 40-foot shipping channels are common. In the 18th and 19th century, the average channel depth was only about 18 feet. Deepening of those channels has translated into millions of tons of cargo being moved economically to factories and stores.

Without the Federal support in the past, we would not have an economical waterway transportation system today. Without Federal support in the future, the system we have already got is going to decay. Moreover, the system we could have, such as the mature Columbia/Snake River system, that opens up new markets for grain and coal, will be lost.

The third argument that I'd like to make is that segmented waterway user fees are obviously going to impact some ports and waterways more than others, and that's going to cause distortion in the marketplace amd make developing waterway systems such as the Columbia/Snake a victim.

Ports such as Portland, my own home port, depend on deep draft channels to allow ships to move up the Columbia to load and unload cargo. And a shallow-draft channel system is needed to transport cargoes to be loaded or unloaded. So here in Portland we are affected both ways.

The estimates that Norm gave I think are in line with what we have in our area. The Port of Portland, for example, has estimated provisions of S. 809 and S. 810 could cost us 4 to 5 million tons of cargo annually, a potential $750 million loss and a threat to as many as 15,000 jobs in this region.

Other ports, including Puget Sound, have open access to deep water and aren't served by inland waterways to any great degree. So that segmented approach to waterway user fees where Columbia River ports such as Portland-Vancouver and Longview are concerned would cause them to suffer much more than other ports, and I think that's another problem.

I'd like to, in touching on this, explore something that I think Representative Clausen has made a good point on. That's this question of Federal policy giving a distinct preference to some ports and disincentives to others. That's in direct violation of constitutional provisions, particularly sections 8 and 9. "All duties must be uniform throughout the nation," is what one of the sections says.

The other says that, "No preference should be given in law to any particular port; and that ports should not be harmed through prohibitive legislation."

I think what I want to do at this point is not quibble between ports and cause some kind of war between the various ports in the system; but to just make the point that the Nation is better served by having a uniform system and by having viable ports in both the Puger Sound and on the Columbia River.

The fourth point that I want to make is while the impact of these proposed user fees on our Nation's entire transportation system is unknown, it is fairly well established that a number of our regional economies, like the already depressed Great Lakes region and the Pacific Northwest, are going to be hurt severely. That makes a case, in effect, for moving slowly and only after we get all the facts, which we don't have today.

I think the last point that I'd like to make is that when all is really said and done, when you unravel this whole debate and look at it in a nutshell, what we are really talking about is that the waterway user fees being proposed are not really fees at all. They are an unsuspecting and not particularly subtle type of new tax. And I just have to say that sitting here in the middle of summer 1981, I find it kind of amazing that fairly shortly after we adopt the largest tax cut bill in this country's history, a tax cut bill that, as you know, gives accelerates depreciation to thoroughbred racehorse owners, we are now going to talk about taxing waterway users and the very guts and soul of the economy of the Pacific Northwest.

Now, I just have to think there's got to be a better balance to be struck than that. Racehorses, and it doesn't matter how many derbies they win, aren't going to carry our economy back into some good health.

A short-term strategy of patching together new revenue sources to balance the budget is a big mistake if it costs us the vitality of our national transportation system.

And I think the last point that I want to make is a comment or two about Senator Hatfield's bill, our distinguished Senator colleague, Senate bill S. 1586, that would establish uniform national fees on imports and exports. The fees would be on a commodity-specific basis, under the Senator's bill, to account for value as a function of tonnage, and they'd be placed directly into a trust fund.

The aim would be to raise enough money through these fees for the trust fund to pay for 100 percent of the operation and maintenance of exisiting waterway and harbor projects and of construction of new projects with drafts under 13.5 meters or 43 feet.

Projects with a draft in excess of 13.5 meters would be covered by 50 percent from the trust fund and 50 percent from a local sponsor, such as a port. Now, I happen to think there's a lot in Senator Hatfield's bill that's very appealing.

It puts in place a national uniform fee schedule which is far superior to the segmented approach taken in S. 809 and S. 810. And in that sense, we don't have a constitutional problem that we have by some of the segmented approaches. They treat deep- and shallow-draft waterways in tandem, and I think that's particularly important, because that's in effect, the way the world really operates, and in particular that's the way things operate in the Pacific Northwest.

It spreads the recovery cost of wateway maintenance and construction to all users and doesn't single out shippers to be targeted for specific treatment.

The main problem that I have with S. 1586 is that it provides for full cost recovery for waterway and harbor projects and would, in effect, end the historic partnership between government and users, I think that's not particularly wise.

I do think that we ought to pursue Senator Hatfield's approach, particularly if it is determined that we don't have international agreements that would be violated or have constitutional problems with it, but pursued only if there is a shared responsibility between the Federal Government and users on the operation and maintenance of waterway projects.

Now, I think that if I was to state a personal preference, I'd say maybe a 50-50 split of the costs, with 50 percent to come from some form of fees or another and the rest from Federal general revenues.

I'd even say that a 70-30 split, with the Federal Government picking up the smaller share, wouldn't be too much of a problem at this point. So in the ballpark, 50-50 looks like something that maybe we could live with in the Pacific Northwest.

The only other point that I would like to make, Mr. Chairman, is that I authored a letter to President Reagan on this matter, which was signed by Senator Hatfield and others in the Northwest delegation, and if you would consent, I'd like to make it a part of the record.

Senator ABDNOR. It will be made a part of the record.

Congressman WYDEN. Thank you very much for giving me this opportunity.

[The letter referred to by Congressman Wyden follows:]

DEAR PRESIDENT REAGAN: As Members of the Pacific Northwest Congressional delegation, we are writing to urge you and your Administration to reconsider proposals for full cost recovery waterway user taxes.

We recognize the objective you have of raising additional revenues in a time of renewed fiscal responsibility. But we submit legislation affecting major transportation systems also must take into account a broader range of objectives, including improving the overall transportation system and our position in world markets.

While these increased taxes will raise additional revenues, they will do so at a significant cost:

Development of mature, energy-efficient waterway systems will be retarded;

Cargo movements will be diverted to foreign ports, hurting regional economies that rely on waterborne commerce;

Inflation will be fueled as the price of domestic goods and imports transported by waterway will be pushed higher; and

Exports, especially bulk commodities such as grain and coal, will be reduced because higher transportation costs make them less competitive in world markets, thus adversely affecting U.S. balance of payments.

In light of these impacts, we urge you to defer your proposals until a thorough analysis of the full repercussions for increasing waterway user taxes has been completed. Congress, in enacting user fees for the inland waterways in 1978 with the passage of Public Law 96-502, was unsure of the effects such taxes would have on the nation's transportation system and therefore mandated a comprehensive study of their impact. The Departments of Commerce and Transportation and other agencies are in the final stages of three years of work on this study which is scheduled to be delivered to Congress by September 30. We hope you will delay any consideration of your proposals until the study has been submitted, reviewed and commented upon by affected parties.

The Members of the Pacific Northwest Congressional delegation feel strongly that the waterway user tax issue must be seen in a broader perspective than simply balancing the budget or philosophically requiring full cost recovery from users.

Increasing waterway user taxes also must be seen as having a definite and adverse impact on the development of an important mode of transportation, on regional economies, on the national economy, on export expansions, national defense, and, ultimately, on relations with our major international trading partners.

Moreover, federal assistance is afforded to all major transportation systems in the United States—and should be because it enhances the productive capacity of the nation. Water transportation, which through inherent efficiencies, serves as a counterbalance to hold down rates in other transportation modes. It should not be singled out for a policy of full cost recovery until national transportation objectives have been established.

Coming from the Pacific Northwest, our concern is chiefly with the Columbia/Snake River System, one of the nation's emerging waterway systems which in a very real sense is becoming the "Northwest Passage" we have sought for decades.

There are 19 port districts on the navigable shallow-draft portion of the Columbia/Snake System. The largest is the Port of Portland, the West Coast's largest export port in terms of tonnage. The reason is because it is one of the finest transportation hubs, served by major Interstate highways, three railroads and the Columbia/Snake waterway system.

Northwest ports are representative of the divergent navigation needs of ports throughout the country. These ports include small and large ports; river and coastal ports; deep-draft and shallow-draft ports; ports which accommodate foreign exports and imports, as well as coastwide and inland domestic trade, including breakbulk, containers, wheat, automobiles, bulks, agricultural products and forest products.

The Port of Portland projects the combined effect of shallow-draft and deep-draft charges would reach as high as $23,750 for a 50,000-ton ship loaded with grain for export. Adding new construction costs of enlarging the Bonneville Lock and deepening the mouth of the Columbia would bring the total fees for that same grain ship up to $63,750.

Under S. 809/H.R. 2959 and S. 810/H.R. 2962, the Columbia/Snake system is subject to fees for both shallow and deep draft. The Port of Portland estimates a loss of four to five million tons of oceangoing cargo from Columbia/Snake River ports if these proposals are enacted. That loss would include containers, wood products, automobiles, dry bulks and grain. Products bound for export could easily be diverted by land transportation modes to Canadian ports which are free of taxes or fees.

The dropoff in cargoes would mean a $750 million loss to the Pacific Northwest economy and potentially 15,000 fewer jobs. For a region already reeling with double-digit unemployment because of what high interest rates have done to the housing and timber industries, this additional blow would be staggering.

Possibilities for future investment also would be diminished. The Port of Portland alone is planning to invest an additional $300 million to expand facilities. Five port district on the upper Columbia are working toward navigation capabilities to improve their local economies. The Pacific Northwest, which is capital short because of restricted markets for goods and desperately needs to diversify, will be denied its best option for long-term growth.

Excessive waterway user fees will have a negative impact on the national economy and will result in inflation, reduced balance of payments and severe economic dislocations.

Waterway transportation is in competition with truck and rail transportation and serve to hold down costs. If waterway rates are raised to cover user taxes, rail and truck rates can be expected to increase up as well.

Beyond that, exporters will be forced to absorb waterway user costs if they are to remain competitive in world markets. Since 43 percent of American exports are farm products, the burden will fall on the already beleaguered U.S. farmer.

Other low-value, high-tonnage bulk commodities also will feel the pinch—including coal, sand and gravel, fuels, and fertilizers.

The American consumer won't escape, either. About 85 percent of the cargo moving in U.S. waterway systems is bulk raw materials or energy products used in the manufacture of consumer products.

Economic dislocations will occur because as cargo movements are diverted or discouraged, considerable public investment in existing waterway and port facilities will be used less and have less value in generating economic activity and jobs.

Mr. President, few issues are simple. We appreciate your efforts to find a more equitable way to finance the operation, maintenance, and construction of wateway facilities. All we ask is that you not move ahead on these proposals until your administration has examined the broad ramifications of increased waterway user taxes. Together let us seek our shared goal of revitalizing America's economy.

Senator ABDNOR. We want to thank you both, Norm and Ron, for coming before the committee. I just want to make a comment. Norm Dicks made reference earlier to the fact, prior to his departure, that we have not had a public works omnibus bill for the last 4 years and there has been a major accumulation of projects that remain unfunded. And it can be said that—and this is not said in the partisan sense at all—but the fact of the matter is we had this constant confrontation between the executive and Congress in trying to arrive at a new methodology for evaluating projects for principle standards as well as a cost sharing formula that was fair and equitable.

And so time marches on, and all these projects are escalating in cost while we try to pull our act together. So it's going to take the best from all of us to put together a fair and equitable formula because we clearly have not had that.

So if Norm were here, I was just going to compliment him for alluding to that.

You also indicated something about your own voting pattern, and I just want to make this observation as to where you put your priority, and I think a lot of us believe very strongly, particularly in the Public Works and Transportation Committee, that we are going to make your job very easy. Because the parameters have already been set in the budget reconciliation process, and there's no difference between the Democratic version and the Republican version in the final resolution.

The one that we negotiated out in the House, subject to be worked on in the Congress between the House and the Senate, the target figures are identical, so we don't have to worry too much about that. All you have to do is support those target figures, which are incorporated in the reconciliation bill, and you will be in keeping with the consensus of the members.

Congressman WYDEN. I think I'll make a comment in response to my colleague's. I agree with you completely. We are dealing with bipartisan matters. It's time to put aside the jockeying between the Congress and the executive. What it comes down to is it's going to be a question of priority, which things really matter in the pecking order.

I was delighted to read in the news yesterday that Dave Stockman was in the Western White House yesterday trying to urge that we make some economies in some of these weapons systems that don't look like they're cost effective. We know we need a strong defense. If we can make some economies there in that particular area of the budget, maybe we don't need to slap on all these revenue raisers that are the heart and foundation of the economy in the Pacific Northwest.

My colleague's point is very well taken, and now it's our job to fashion a bipartisan kind of approach and get on with the backlog.

Senator ABDNOR. Well, thank you. Ron. We're going to recess until 1:30.

[AFTER RECESS]

Senator **Gorton**. We would like to reconvene this hearing. Senator Abdnor has been delayed and has asked me, because we have so many witnesses, to begin, and I will do so.

There is a great deal of interest in this hearing. Many, many witnesses, both this morning and this afternoon. And so we will, once again, urge each of the witnesses to limit his or her formal remarks to 5 minutes. Any written statement will be placed in the record, of course, in its entirety. This will allow everyone who wishes to testify who is on the schedule to do so and will give us a chance for questions.

The next panel with which we will resume right now will be the pro-user fee panel, consisting of Mr. Weisser and Mr. Swain. Also Mr. Cellarius. So would the three of them please step forward?

Mr. Weisser, you may proceed.

STATEMENT OF JOHN F. WEISSER, ASSISTANT GENERAL SOLICITOR GENERAL, UNION PACIFIC RAILROAD CO.

Mr. **Weisser**. We have submitted a statement on behalf of the railroads, basically supporting the concept of a full user charge. I'll not propose to read any part of the statement but just to summarize a few points.

As you know, the user charge has been the subject of concern since Franklin Delano Roosevelt first suggested it in one of his addresses, saying that those using the waterways should be required to pay fees. It's been in subsequent addresses of every President since that time. John Kennedy, of course, very strongly supported a full tax for air, highway, and waterway users.

The barge systems in this part of the country, we feel, are, in fact, mature industries. They can bear some of the charges for the waterways that are provided for them. We favor S. 810, which would require recovery of 100 percent of the M. & O. charges attributable to commercial use of the waterways.

We also feel that construction costs for new projects should be borne by those who use the facilities. We don't think that the users are being singled out by any stretch of the imagination, and we do, in fact, feel that they should be placed on a par with the other modes of transportation that compete for the same traffic, such as railroads who pay for their own right-of-way.

We also would feel that this type of legislation requires a very strong examination of what would be otherwise marginal waterway projects. The Bonneville lock, for instance, is one that we feel bears very strong scrutiny. The feasibility studies of the Corps of Engineers were originally criticized very strongly by the Secretary of Army in June of last year. A subsequent feasibility study has been completed, and we, as railroads, propose to take a very sharp look at that document and furnish to this committee and others in Congress our views.

Specifically, as to S. 1586, Senator Hatfield's bill, conceptually we don't feel that that is a valid approach, because it would spread over all of the tonnage that is brought to the ports by various modes the inland waterway charges, as well as the deep-channel dredging and so on. So it would be really local freight that would be paying for the use of the waterway system, as well as for the inland waterways.

For instance, there were some figures in the Oregonian recently that indicated that 43.7 million tons of freight is being shipped overseas from the lower Columbia ports. There's 9.7 million tons of this freight coming from the river. In our view, the river should be paying for those facilities which they are—rivers should be paying for those facilities that they are using, and when it comes to the deep-water part of the costs, well, that may be spread more fairly in a different manner.

Basically, there's been, over the years, a subsidy to the water systems which we feel has been unfair to the modes of competition. It has tended to allow traffic to be siphoned to the river, which more logically could be moved by other modes.

To some extent, we feel the bankruptcy of the Milwaukee Railroad, for that matter, was a byproduct of some of our misdirection of government subsidies to competing modes of transportation.

The energy efficiency is addressed in my statement. Just briefly there, it's our position that the truck-barge mode of transportation is not energy efficient for tapping rail-oriented areas, such as Montana and the Dakotas. This is where a substantial portion of the traffic—the grain traffic, particularly—on the river comes from.

There's an independent study, which I have passed to your staff, which would indicate that the rail carriers on the Montana and Dakota traffic are 55 percent or better in efficiency than a barge-truck oriented type of movement. We feel, then, that the lack of a user charge tends to abuse inefficient use of fuel and that if we did have an evening of the subsidies so that the barge industry was paying for the use of the waterways, then, in fact, we would see a better reorientation of the freight.

And we feel really that the general taxpayer is being required to pay, and that, in fact, there's not a direct gain to any specific user that would merit the continuation of the type of subsidy that's been taking place.

Also, briefly, I'd like to address the Bonneville Dam project. That is a $150 million project to put the new lock into service. So far, the barges have not offered to pay anything for that improvement. The traffic is moving on the river now. They are admitting a substantial share of the traffic, and the area will tend to grow whether the movement takes place via barge or rail or truck.

The thing that's really going to require or will really precipitate the growth of the area is really the market that we have, not necessarily whether barge transportation is available. The congestion fees are still a substantial item for consideration on a project such as the Bonneville Dam and also for the use of the river in general.

The Corps of Engineers, when they sent their report to the Secretary of the Army on the Bonneville Dam, were chastised by the Secretary of the Army, indicating in his rejection of the report that the corps should not be trying to develop short-haul, low-rated commodities to support projects of this kind and that a measured understanding of the type of traffic that's moving needs to be developed and that there should be some effort to discourage traffic from the river which would not be economically justified.

A specific example of the Bonneville lock economic feasibility study was the examination of some 6 million tons of sand and gravel from the Dalles area, which would go on the river roughly 150 miles. And to think that you could justify a Federal project costing $150 million for that type of traffic, it would seem to be repugnant to the Secretary of the Army. For that reason, he rejected the initial feasibility report.

That basically summarizes my presentation, Senator Gorton. I'd be happy to answer any questions. Thank you.

Senator **Gorton**. We will now hear from Mr. Cellarius.

STATEMENT OF RICHARD A. CELLARIUS, DIRECTOR AND NATIONAL SECRETARY, SIERRA CLUB

Mr. **Cellarius**. Thank you, Senator Gorton. My name is Richard Cellarius, and I live in Olympia, Wash., where I am a member of the faculty of the Evergreen State College. I am also a director and national secretary of the Sierra Club. I am speaking today on behalf of over 200,000 Sierra Club members nationwide and particularly, the 10,000 members who live in the Pacific Northwest.

The basic issues I would like to discuss today are who should pay the costs for use of the Nation's water resources and how should resource development decisions be made and with particular reference to coal port development.

The Sierra Club believes that water resource development should be governed by the competitive restraints of the marketplace, carefully conditioned by the needs to protect, maintain, and enhance environmental quality and other social benefits for all citizens. Moreover, projects should only be authorized after thorough public review and analysis of the environmental and economic costs and benefits.

Therefore, the Sierra Club supports legislative proposals for 100 percent recovery of Federal expenditures for operation, maintenance, and construction or rehabilitation of deep-draft channels, ports, and inland waterways, similar to those in S. 809 and S. 810, introduced by Senators Stafford and Abdnor, and for multifaceted feasibility studies similar to those proposed in S. 576 by Senator Moynihan. I might point out that I think those feasibility studies—that multifaceted approach is similar to the systems approach advocated by Senator Clausen.

We find unacceptable proposals such as those in S. 828 and similar legislation that would short-circuit the careful scrutiny provided by the National Environmental Policy Act, the courts, and even the Congress itself, or those which provide for continued Federal subsidies for private benefit.

This subcommittee has already received testimony from Sierra Club spokespersons around the country on these and other water development issues. I will not repeat their detailed arguments or analyses of specific legislative proposals here, but refer you to their statements for further elaboration of my remarks. I would like briefly to summarize the bases of our local concerns, however. I also have a specific suggestion for improving the study process outlined in Senator Moynihan's bill.

We here in the Pacific Northwest are privileged to enjoy a beautiful and health-giving natural environment. That environment, when it is healthy and adequately protected, provides us with a large number of renewable natural resources as well. Senator Gorton, I am sure, is well informed on the negative impacts that commercial development of our rivers, in particular, has had on the ability of our environment to sustain its natural productivity. The Sierra Club believes that such commercial development should not be promoted if it cannot meet rigorous economic or environmental tests.

For this reason, the Sierra Club has long advocated waterway user charges. The subsidies provided by Federal construction and maintenance artificially attract commercial interests to water resources that have other important societal values such as those I have just identified. The consequence is environmental deterioration that does not even have a valid economic justification.

One major purpose of adopting cost recovery measures such as users' fees is to test the various economic arguments put forward by opponents and proponents of a project—and water projects are notorious for the controversies over their economic soundness. Project beneficiaries should be willing to bear the full costs of projects that are, in fact, economically sound. Those projects that cannot secure the financial support of their beneficiaries can be assumed to be uneconomic for the taxpayers as well. And the reimbursed costs must include measures for mitigating the adverse environmental effects of the projects.

Under President Reagan, the Congress has been through a painful budget-cutting process in which favorite programs of each and every interest have been cut deeply. Environmental protection programs have not been exempt. Neither should resource development and utilization programs. These programs must be subjected to the closest of economic scrutiny and must finally be required to repay to the treasury their real cost. It is time to put the pork barrel away for good.

On the same basis, this subcommittee should be very concerned about many of the port development bills before it. What are the economic benefits of one port over another? What are the economic and environmental costs? Do we want unit trains of coal rumbling through the Columbia Gorge day and night? If we must export our coal, are there other routes that are more acceptable? How does development of coal export facilities fit in with rational energy and transportation policies for this country and the Pacific Northwest? These are all questions that must be answered through a logical study process, rather than through the blanket declarations in legislative proposals.

And what's the rush? Are these proposals so urgent and so critical that we should make a shambles of the Nation's programs for environmental protection, the judicial review process, or even the right of the Congress to consider and fund major projects on their individual merits? Do we even know if we can or need to afford the massive costs involved?

Thus, there are many questions our members have about the impact of port development and the real need, if any, to promote artificially the export of coal, which will continue to be an important domestic energy source as long as we utilize it responsibly.

The Sierra Club can only support legislation that provides for a process by which these questions can be studied and answered by experts in a public forum.

As I noted at the beginning, we are, therefore, in general support of S. 576. There are two major improvements that we would like to suggest be incorporated into it, however. The first deals with the study process. As presently written, S. 576 has no provision for public comment and, in fact, says that the statement on the anticipated environmental impact in the report of the proposed Interagency Harbor Development Task Force, quote, "shall be deemed to be an environmental impact statement for purposes of the National Environmental Policy Act of 1969."

Does that mean that it does not need to meet the requirements for EIS's established by the Council on Environmental Quality and is not subject to the public review process incorporated into those procedures? If so, that provision is as unacceptable to us as the provisions in the other bills under consideration that short-circuit the environmental review process.

We urge that in addition to reviewing "comments on the feasibility study by interested States and agencies," the task force should also be required first to review and consider comments of the public on the study, and second to have its own report subject to public review and comment before it is submitted to the President.

I heard this morning several comments about this 205 study, "What's going on?" And I think we are in danger of seeing the same thing under these other studies if we don't have a clear direction that there should be a public process for review.

The second change that should be made in S. 576 is to make it consistent with the users' fee legislation we have been discussing by requiring 100-percent-cost recovery for these projects, rather than the 25-percent minimum proposed in section 7 of that bill.

Senator, I appreciate the opportunity to present these comments on these proposals on behalf of the Sierra Club members in the Pacific Northwest region.

Thank you.

STATEMENT OF MR. McFARLING

Mr. McFarling. National policy should encourage the efficient use of American resources devoted to transportation purposes. Proper measurement of efficiency includes assessment of penalties for adverse side effects of the ways in which those resources are used.

Political events and the maneuvers of the multinational oil companies have evoked popular concern for at least one energy resource. All energy sources are vital; but so are materials usable for purposes other than fuel. A third vital resource is usable space—for many desirable and essential uses, apart from transportation.

Indications are that many people—including persons who occupy public office—perceive the costs commonly assigned to a service to be equivalent with the value of resources consumed by the transport technology performing those services. It further appears that most of those people perceive whatever the users pay to define the cost of a technology. By that shallow reasoning, the degree to which a means of conveyance qualifies as an inherently low-cost form varies directly with the extent to which user charges defray associated costs.

To act in a responsible manner, the persons who enact laws affecting transportation must acknowledge that there is a difference between taxes and user charges. They need to legislate accordingly.

Last weekend I heard an influentially placed individual declare that the law should not require a commercial practitioner of transport on publicly provided facilities to pay compensatory user charges, because the carrier would raise his rates to pass the charges onto his customers. As a corollary, the individual implied that "his customers" is synonymous with "the taxpaying public." The practitioner in question would forfeit patronage because some prospective customers would discover that the services of another technology are a better value. The individual recognized that circumstance, but employed it as a further argument against compensatory user charges. The practitioner newly exposed to user charge would trim his payroll and curtail other business-related expenditures, to be sure; but the stimulus to the carrier which attracted the diverted traffic, coupled with the savings to taxpayers, would make the net result favorable to the Nation's economy.

Companies engaging in one transport technology traditionally have helped other American taxpayers to carry the burden of government cost. Practitioners of the other three technologies have constituted parts of that burden.

If practitioners of one technology should be excused from paying user charges, then government should provide the infrastructure of every technology without charge to its users.

If government should impose user charges, it should strive to make those charges compensatory, else the imposts are mere tokenism. For user charges to be compensatory, they must do more than pay construction costs. They must defray the real property taxes and special assessments to which the infrastructure would be liable if it were privately owned and impartially assessed. They must provide a reserve for paying personal injury and property damage claims to which the proprietors of privately owned infrastructure are subject.

If the presence of a specific transport facility is advantageous to the proprietors of a business for a purpose other than their personal conveyance, they should be subject to some measure of user charge.

It makes little sense to argue that user charges be phased in ever so slowly—and never to a compensatory level—lest the exploiters of a public property suffer shock. Would that legislators and administration officials showed as much solicitude in behalf of the public which is levied upon to construct those public works for any technology and to make up for the tax base lost when property was taken from private ownership. Solicitude would likewise be warranted for the host of shippers and travelers among the taxpaying public whom government promotion of certain technologies has deprived or threatens to deprive of access to an intrinsically preferable carrier.

Claiming that the intent of Congress is to develop the potentialities of all technologies strains credulity, when Congressmen continue partiality toward one or more of those technologies which are traditional proteges of public works programs.

Our President, who portrays himself as the archapostle of free enterprise, has exhibited rather discordant policies toward the several transport technologies. He has undertaken to halt summarily Government involvement in one. He has expressed intent to collect from users of another form a substantial part of future public expenditures upon facilities—but does not threaten to abandon those facilities. Regarding a third technology, the administration attitude, expressed through DOT Secretary, is that America's paramount transportation need is to recreate the glory years of the corporations which market conveyances for that specific form of transport.

The privately funded technology mentioned earlier was dominant for almost a century. Government support began only recently. It became necessary only because Government long before had established agencies to promote each of the other technologies. Once established, each agency conjured a mandate to promote its protege to whatever extent would enable it to capture traffic from the privately funded form. Such supports as Government has offered the traditionally private transport form consists primarily of slowing. the destruction of its network, and repairing a small fraction of the damage wreaked by prior Government policies.

Navigation in the Columbia basin should be allowed to develop to whatever extent its users will support.

Though coddling the navigation trade will stimulate business for its direct participants and for vessel builders, it will have a stifling effect upon railway shareholders, management personnel, and employees. It will have adverse effects upon suppliers of railway equipment and material. Several such companies have Oregon or Washington payrolls.

It will tend to deprive people along the Columbia and elsewhere of railway transport which would meet at least some of their needs more satisfactorily than river craft.

It will increase the total tax upon individuals and companies, almost none of whom will benefit—and at least as many of whom will suffer—by reason of traffic diversion from railway to river vessel. I can see no reason to believe that diversion would effect a net increase in payrolls at Columbia River ports.

It will deprive local jurisdictions of tax revenue drawn from railways abandoned or downgraded by reason of traffic diversion. Shrinkage of revenue base will intensify the burden on remaining ratepayers.

There are congressional delegates who deserve gratitude for recently having shielded American railway passenger service from some of the extensive damage which the original Stockman-Reagan budget would have inflicted.

No single technology is superior to all others for every transport task. Government policy should allow each form of transport to develop as fully as voluntary investment and patronage make possible—with due regard for other social needs and legitimate desires.

Senator GORTON. Mr. Weisser, on the rather unlikely assumption that the administration bills should be passed in their entirety and there should be an immediate 100-percent-cost recovery, what percentage of grain traffic from eastern Oregon and Washington and further east than that would you expect to be transferred from barge or combination truck-barge transportation to rail transportation?

Mr. WEISSER. I'm not an expert in this field. There are some traffic people from the railroads available who may be able to answer that. I could give you some of the information I've been able to discern by looking at some of the reports I've seen. The Port of Portland developed a report some time ago that on the Columbia River there is about $7 million a year spent for operation and maintenance of the system.

And if you took the total tonnage that came on the river last year, it looks like there's about a 79-cents-per-ton charge that would be properly assessed to that traffic, and that would average out to something like 2.4 cents per bushel on a total average of grain.

So I guess you'd get to the economic points of where 2.4 cents per bushel would tip if from one mode of transportation to the other. And where that would be I couldn't say, Senator.

Senator GORTON. In any event, the difference would be substantial?

Mr. WEISSER. I'm not sure whether it would or not. Our experience with the barges—and I've been through one or two grain cases where we have tried to reduce rates to attract traffic from the barges to the rails in this area. We have found that every time we've tried to meet their levels, they have been able to use our rate system as an umbrella, and we would like to think that if they were paying their full fair share, we would have a good chance of competing.

That's basically what we're looking for is some equity and competition.

Senator GORTON. If there were a substantial shift of, say, 25 percent or more of the grain which now travels by barge, to rail, or 50 percent, would the railroads be able to handle that increased traffic and, in fact, would there be terminal facilities available for it at either end of the rail transportation for its further export?

Mr. WEISSER. Well, in terms of carloads, my math wouldn't be too good, but assuming—I think we are saying half of the traffic on the Columbia River that's grain right now would come out to about 2.5 million tons if I read the graphs correctly. And that would maybe be about 25,000 carloads of grain if my math is correct.

I think the railroads would have the capacity, and I think to some extent, it would be depending upon how the elevators at the terminals would be willing to work. If they wanted to work 24 hours a day, three shifts a day, we could put through a lot more grain than we are putting through right now.

If they persisted in going two shifts a day, like most of the time they're working, then, of course, we would have some problems. But it's not just a hard and fast statement that if you shift all this tonnage to the railroads, it can't be done, because I don't feel that's necessarily true. It depends not only on the volume, but it depends on how it flows through the terminals, so I think it—basically you can't take at face value that this is going to jam the terminals if all this traffic shifts from one mode to another.

Senator GORTON. This question is for both of you. Assuming that the legislative process, which is so often the case, comes up with some compromise between the present regime or system of laws and the administration proposals, what do you think the most important part of the administration proposal is in connection with user fees? Do you think it more important for the Congress to establish the principle of user fees for operations and maintenance or for capital improvements such as the—as the Bonneville Lock? Do you think it appropriate if we are going to 100 percent cost recovery in either of them to have some kind of formula for cost sharing?

What's the most important part of these proposals which each of you support in their entitety if you divide them into sections?

Mr. WEISSER. Well, if I may, Senator Gorton, Mr. Frank Wilner, with the Association of American Railroads in their waterway division, as president of the industry has studied this particular point. I might wish him to address this.

Mr. WILNER. Senator, as an economist, and I think most economists will agree, that the proper focus of economic analysis is that when you have a facility, you want to encourage its use; and you want to encourage its use until such time that it has to be renewed or it has to be expanded.

So, obviously, the focus would be on new projects or expansion of existing projects. And I think the railroad industry economists, as well as our economists, will say that we have to have some means of requiring users to pay the benefits of expanded projects before we try to shut down existing projects. The railroad industry has never advocated that existing projects be shut down.

In fact, some people have said that segment tolls would result in the shutting down of existing segments. We have come back and said, "Well, some sort of compromise would be necessary, perhaps a two-tier tariff, the use of full taxes perhaps to cross-subsidize some of these projects, so that segment tolls would not shut down the segment."

That is not to say that we do not continue to support full recovery user charges. That has to be a long-term objective in that all modes of transportation must pay the full costs of Federal benefits that they receive, the railroad industry included.

But, in a short-term objective, we would have to focus on expansion or the building of new projects.

Senator GORTON. Mr. Cellarius?

Mr. CELLARIUS. Senator, from the environmental point of view I think it's clear that capital projects have a substantial environmental impact, and so I think our propensity would be to say that certainly folks should be prepared to pay the costs of capital projects, because the environmental factors need to be built into that, and they ought not to be subsidized.

I think there's a concern, however, that even in some of the maintenance of existing projects, there are some severe environmental impacts that, in fact, may not be necessary if one were to take a hard look at the environmental and economic tradeoffs. I think we'd want to have some sort of provision built in there.

Just because they are being subsidized is no reason to do these maintenance projects just because it would have some—provide some economic support without analysis.

Senator ABDNOR. What were the impacts?

Mr. CELLARIUS. In terms of maintenance there's a certain amount of dredging and that sort of thing that could have impacts on fish and wildlife. There may be some dredging that is not totally necessary.

Senator ABDNOR. Like what?

Mr. CELLARIUS. Well, certain harbor dredging. Perhaps dredging to maintain deeper drafts than are necessary. I'm not an expert in some of these areas, but it's my understanding that the—some of the measures that have been used to maintain waterways have had some very bad impacts on sufficient wildlife resources.

Senator ABDNOR. Mr. Weisser, everything I heard in Montana from the corps and from people I talked to though that second lock was very important to Bonneville. You say it isn't. Why?

Mr. WEISSER. Well, Senator, I don't believe there's going to be any bearing on the growth of the area, whether the lock itself is changed. The traffic is moving now.

Senator ABDNOR. Very slow in some cases. It's tied up for a long time.

Mr. WEISSER. I guess it gets down to a question of whether we want to put $150 million into the lock improvement so that we could speed up the traffic for whatever extent this would improve the time of going through the lock. I don't think this traffic is time sensitive and that, in any sense of the word, is a bulk product that's moving down to the terminal where it's loaded into ships.

Senator ABDNOR. No, but going ahead with the growth trend in the last few years, I think that if we started building that project tomorrow, by the time we completed it, it would be very much in demand because every other lock up there is considerably larger than this one.

Mr. WEISSER. The other locks are of uniform size; that's correct. This is smaller. But at the same time, the traffic growth I don't think is going to be dependent on the lock's existence. And I think if a reasonable benefit cost analysis were made where you were determining the interest on your investment at current interest rates, where it's 6⅜ percent that's currently used by the corps in evaluating its projects, it would not have a positive benefit. It would come out with a negative benefit.

Senator ABDNOR. Can the barges come even close to competing with your unit trains?

Mr. WEISSER. I'd have to defer on that to a traffic person. I know we definitely are putting in unit rates wherever we possibly can to be a stronger competitor.

Senator ABDNOR. We heard a lot of testimony about how it discriminates against little towns with the elevators. I guess this means considerable additional trucking over to the terminals. So they use the unit trains.

I just remembered you said you couldn't compete. Everytime you dropped your price, they dropped their price. It was my understanding you had it all over them on the unit train.

Mr. WEISSER. What I was referring to, we have an area of competition where we have, in fact, the umbrella from the barges.

Senator ABDNOR. Last, how do you answer Senator Packwood when he pointed out all the benefits you get from the land grants, mineral rights, coals you have, the lumber, the lumber products. Do you consider that any kind of a subsidy?

Mr. WEISSER. I think that's been answered a number of times in a number of forums.

Senator ABDNOR. Well, it always comes up.

Mr. WEISSER. I know it does. And the obvious answer is that the railroads were built to help settle this country. They performed a function in getting people out to an area where they could farm and settle the area.

And then through the World War II efforts of the railroads of carrying freight for this Government.

Senator ABDNOR. Let's forget the past. How about today, everything being equal?

Mr. WEISSER. My economist friend, Mr. Wilner, has a comment.

Mr. WILNER. Senator Abdnor, every mode of transportation at one time or another has received a Federal subsidy, railroads, barges, motor carriers, airlines. What we are looking at is not what happened in the past. We could argue about who received what, we could argue about who repaid what.

Senator ABDNOR. Let me ask you this much, then. Let's forget the past and start out equally here.

Mr. WILNER. That's what we're saying here.

Senator ABDNOR. Would you give up your lumber business and mining business? Would you give that all up today?

Mr. WILNER. Senator Abdnor, what we are saying—and we testified to this at the Dirksen Building a couple of months ago—we are not advocating the continuation of subsidies to railroads. We are not advocating the continuation of loan guarantees to the railroads. We are saying that all modes, railroads included, beginning tomorrow must stand on their own two feet.

Senator ABDNOR. How about retirement? Will you take over the pension?

Mr. WILNER. Senator Abdnor, railroad retirement is the equivalent of social security. Railroad workers do not receive social security. We receive railroad retirement. Railroad retirement has the same problems as does social security.

The Congress, on many occasions, has been asked to merge the two systems, and Congress has decided not to merge the two systems. And it was Congress that determined in 1974 that the deficit in railroad retirement was not the fault of the railroad industry but was a problem of the social security laws that prevented social security from paying the railroad retirement the amount of windfall or dual benefits that had developed.

Senator ABDNOR. Do you want to take it back over, then? I was just arguing the other way the other day. I thought it was going too far.

Senator GORTON. Let me ask a question that will be specifically directed at Union Pacific and Burlington Northern. Are those two major western railroads operating—do they now have an operating profit from rail operation, as opposed to their land owning activities?

I gather they are separately carried. At least Burlington Northern is attempting to even more significantly separate those operations. In other words, does your land holding activities—the land ownership activities subsidize the rail transport?

Mr. WEISSER. Not for Union Pacific, Senator Gorton.

Mr. TAYLOR. My name is Woodrow Taylor, regional counsel for Burlington Northern. I'd like to answer that and Senator Abdnor's questions about subsidies for land grants. Our rate of return in the railroad industry has run from 3 to 7 percent. We have made a slight profit in the rail business in the last few years, but it hasn't been a profit even that the ICC recognizes as a rate of return that we should, from our rail industry.

Senator GORTON. You are saying you are not subsidizing your land ownership?

Mr. TAYLOR. No, we are not. However, the rate of return upon which the rail itself is predicated is not sufficient to plow back into the rail industry, which we have the rail phase of it, the millions on millions of dollars to keep that system operating and to keep it intact.

Now, with respect to the so-called land grant subsidy, it's an acknowledged fact that for 75 years the railroads that received land-grant land did ship the goods and personnel of the U.S. Government at less rates than its tariff rates, and it was determined by the Congress of the United States and the Federal court of this country that by 1954 in a reparations case, that the rails had more than paid back with interest all the so-called freebies in the form of land grant receipts.

Now, that is a fact. It's on the record. And when Mr. Weisser said this is an old matter, it's been beat over the head and has been debated many times.

Senator ABDNOR. Just a moment. What was that? You say you only charged half rate?

Mr. TAYLOR. I said we charged a less than tariff rate for Government goods and personnel for 75 years. In fact, it got so bad in 1942 that some of the railroads wanted to give back some of the land so that they could charge the Government the same rate as they were charging other people.

Senator ABDNOR. It's still going on, is it?

Mr. TAYLOR. And it's a fact that the reparations case determined that these moneys had been paid back to the extent that there wasn't any grant of free land to the railroads.

Senator ABDNOR. I guess I've never seen the figures. It would be interesting.

Congressman CLAUSEN. I only have one question, and that would be to have an amplification of, I think, a comment that you made.

Mr. Weisser, the thrust of your testimony has been directed toward what I understand to be the application of a users' fee as you see it would provide more of an equity in competition. I think that's the phrase that you used.

Mr. WEISSER. Yes, right.

Congressman CLAUSEN. Is it your view that there's an inequity under the current system? And if so, would you provide more detail as to what would be required to bring it back into equity in terms of the competitive factors involved?

Mr. WEISSER. The inequity, as I see it, is that the right-of-way and, in effect, the roadbed of the barge system is being furnished to them at no cost. Railroads, as my statement indicates, have to supply their own right-of-way and roadbed, and this takes roughly 34 percent of every operating dollar that we make to establish and maintain that right-of-way so we can move the traffic. And the equity that I would see that could be established would be to have them pay a share of the cost of maintaining the waterways that is attributable to commercial use.

That would put us in the position to compete more fairly. It would be to the overall benefit of the taxpayers of this country, because it would be coming from the user, rather than the taxpayer and would put the transportation system into a truly competitive format, which it hasn't been since the Government's been subsidizing the waterways.

Congressman CLAUSEN. I guess really what I'm looking for, because we hear these kinds of comments and allegations of the inequities that are involved and I'm really trying to pin down from you what percentages would be—how far out of equity is the current structure?

Mr. WEISSER. Well, if I could defer to Mr. Wilner.

Congressman CLAUSEN. Would you need to have a balance of—I mean is it 50-50, is it 75-25?

Mr. WILNER. The AER has developed some figures indicating that something like 42 percent of the—42 percent of barge revenues or the equivalent of 42 percent of barge revenues are subsidies to the inland barge industry, and this is developed by looking at the Corps of Engineers' inland navigation budget.

In fact, last year General Hyberg, as Deputy Chief of Engineers for the Corps of Engineers, testified that the inland navigation budget for the Corps of Engineers exceeded $800 million annually. This was just for navigation projects. We estimated that if the railroad industry received a similar subsidy of 42 percent of our revenues—we are a $26 billion annual revenue industry—we would require something in the vicinity of $12 billion in subsidies just to stay even with the inland barge industry.

Congressman CLAUSEN. OK.

Senator ABDNOR. Well, thank you, gentlemen. I appreciate your testimony.

Our next set of witnesses are the barge and steamship operation panel, Messrs. Lindstrom, Brix, Cornelius, Shaffer, Gratis, and Garside.

Mr. Lindstrom, I guess we'll let you start off.

Mr. LINDSTROM. Thank you, Mr. Chairman. Good afternoon. Also, best wishes for Senator Gorton and the others on the panel.

I'm Steve Lindstrom, executive vice president of Pacific Northwest Waterways Association, and I'd like to take just a moment to express regrets on behalf of Mr. Hank Gratis, the president of International Shipping and also the president of the Puget Sound

Steamship Operators Association. He was not able to be with us today, and he will submit written testimony before the record closes on behalf of the Puget Sound Steamship Operators Association.

I would also like to express the apologies of James P. Shaffer, an elected member of my executive committee of PNWA. He was here all morning, but as an independent businessman, he had to return to Everett to sell a crane or something. Perhaps of little importance on the national scene but extremely important to him. We'll see his testimony rendered by myself following the remarks of the other three members of the panel, certainly.

I'd like to turn the microphone over to Mr. Peter Brix, the president of Knappton Corp. of Portland, Oreg., and also the chairman of the Northwest Inland Waterways Committee.

STATEMENT OF PETER J. BRIX, CHAIRMAN, NORTHWEST INLAND WATERWAYS COMMITTEE

Mr. BRIX. Thank you. I'm here today representing my company, Knappton Corp., and in addition to that, I'm here as chairman of the Northwest Inland Waterways Committee, which represents, for the purposes of these hearings, the barge companies on the Columbia/Snake River System.

We thank you, Senator Abdnor, Senator Gorton, Representative Clausen, for taking the interest to hear the testimony today, and we feel that this is a vital thing for the discussion of this issue.

We have the deepest concern over the impact of the various user tax proposals. S. 809 and 810, we believe, would devastate the Columbia/Snake River System, all of the ports that are tributary to this system.

The transportation network, which includes truck, barge, and rail would be faced with a severe disruption. None of these systems, in our opinion, are able to take care of the transportation needs of this Columbia River basin. The jobs which are provided are very substantial, as you have heard in earlier testimony, and these jobs and the economy would be largely left meaningless.

There have been billions of dollars invested in industrial facilities, port facilities, and transportation assets based on a historic reliance on a well-proven, efficient system. These would be jeopardized, if not lost. Public money, taxpayers' money has been spent on projects which are shown to have a very positive cost-benefit ratio for navigation. These projects would be rendered largely useless. These projects are owned by the American taxpayer. The money has been spent. And in all cases on the Columbia and Snake Rivers, these projects have exceeded the cost-benefit projections. They have been more successful than the Corps of Engineers or Congress anticipated.

The user tax which has been proposed would eliminate these benefits to the public. These facilities belong to all of the people in the United States, and we believe that these tax dollars should continue to be used and the efficiencies maximized.

All of transportation has some form of subsidy, and I believe that we need to address the issue of subsidies in transportation to all modes at one time. I think to single out any one mode and start talking about subsidies and correcting or attempting to correct a situation with regard to one mode without looking at the others, would be disastrous.

If we were to impose the type of user charges that have been discussed on the Columbia/Snake River System, we believe it would develop a severe loss of business to this area, largely going to Canada, some business to Mexico.

What we are seeking is an equitable, reasonable solution to this issue. We believe that it's important that we have time to assess the problem, the complications of the problem. We look at a bill such as Senator Hatfield introduced as a possible alternative. We don't know yet if it's the right answer, but I think we need to look at new answers and alternates to the things that have been proposed.

The main thing that we are interested in in our industry, not only on our behalf but on behalf of the shippers who use our services, is that the billions of dollars and the thousand of jobs that are involved are not dislocated and disrupted. We think this is a very serious matter, and it deserves much more time and careful analysis than it's been given to date.

I thank you for the opportunity to make these comments. My written testimony, I believe, has been submitted to you. Thank you.

Senator **Abdnor**. Thank you.

Mr. **Lindstrom**. I'd like to turn the microphone over, now, to Mr. Ed Ellis of Cascade Shipping, who is representing the Governor's Advisory Committee for Maritime Affairs in Oregon. His remarks will reflect those of the Portland Steamship Operation and its president, Capt. Vince Jackson. Mr. Ellis.

STATEMENT OF ED ELLIS, PORTLAND STEAMSHIP OPERATORS' ASSOCIATION

Mr. **Ellis**. I apologize for Captain Jackson, but he couldn't be here today. I would like to summarize his statement, which you have.

The members of the Portland Steamship Operators' Association, representing a group of 27 owners presently using the Columbia River system and involved with three States, Washington, Idaho, and Oregon, are writing to urge you and the other members of your committee to exert the very maximum effort to effect consideration of alternatives to the administration proposals for full cost recovery waterway taxes.

It is our view that the existing national navigation system, both deep draft and inland shallow draft, must be approached as one system.

This proposal calls for the local areas to provide a local cost share in any new construction projects.

Should it be feasible to defer the administration proposals until further and thorough analysis of the full repercussions for increasing waterway user taxes, we recommend, as the Departments of Commerce and Transportation are in the final stages of a 3-year study presently scheduled to be delivered to Congress in September of this year that a deferral in implementation of a waterway user tax be made until the study has been submitted, reviewed, and commented on by affected parties.

I have given each of you a schedule of what tonnage taxes are in other areas of the world as compared with what they are in the United States. This changes very rapidly in some countries, so I advise you to keep up-to-date if you do use those figures. There is a book, "Baltic and International Maritime Conference," dealing with taxation, and this publication is revised yearly And Shipowners Attention is brought out on a weekly circuit, published by this publication.

Also, I'd like to make a personal comment. I hear a lot about coal. This is my own personal feeling. Everybody talks about deepening channels for coal and further dredging for coal ports. And coal, in my way of thinking, is a natural resource that maybe we should conserve for our own use in years to come. Maybe that's what we're going to have to fall back on in the years to come. And if we're going to export coal, fine and dandy, but then I think the users of the coal should pay for it through maybe an additional tonnage tax on the vessels that come here and pick it up.

That's a personal feeling. Thank you for being able to appear.

Mr. **Lindstrom**. Mr. Chairman, the next member of our panel is Mr. Tom Garside, vice president for the common carrier services, Northwest & Alaska Division, Crowley Maritime Corp. Mr. Garside is based in Seattle.

STATEMENT OF THOMAS E. GARSIDE, VICE PRESIDENT, NORTHWEST & ALASKA DIVISION, CROWLEY MARTIME CORP.

Mr. **Garside**. Thank you, Mr. Chairman, Senator Gorton, Representative Clausen, members of the panel, I am the vice president of common carrier services, Northwest & Alaska Division, Crowley Maritime Corp.

Crowley Maritime Corp. has been in business since 1990, and while our operations span the globe, a major part of these operations involve the movement of cargo by tug and barge on the Pacific west coast and Alaska. It is in connection with these latter operations that I address my remarks today.

My company supports President Reagan's economic recovery program to bring inflation and Government spending under control and turn the economy in the right direction. However, the integration of a waterway user charge into this economic program without first taking into consideration the findings of the inland user tax impact study, which is scheduled to be transmitted to Congress by September 30 of this year, is totally premature. Any further fees should be set only after completion and digestion of the inland waterways user charge tax study.

Our interest and concern regarding these issues under discussion are based on three simple statements:

First, Crowley's existing investments in its transportation system on the west coast exceed one-half billion dollars and provides jobs for some 1,200 employees in the States of California, Oregon, Washington, and Alaska. We do not want to see that investment or those jobs jeopardized through abrupt, unreasoned, or extreme changes in the national transportation policy. After all, it is the private sector that will eventually bear the brunt of policy changes and is responsible for making the system work.

Second, our proposed future operations involve investment of large sums of money at a variety of locations. Prudent management dictates such commitments not be made if major policy changes are imminent or the degree of change is uncertain.

Third, our transportation revenues come from the interchange of goods between the producer and the consumers. This link of commerce also involves other transportation modes. Breaking of this efficient transportation chain, a long-established way of doing business, would adversely affect us and all of the Nation, not just the tug and barge industry.

The barge and towing industry is highly competitive between carriers. We provide a competitive alternative to shippers who, without us, would be at the mercy of railroads.

No system of cost recovery should be imposed that will cripple the existing system, divert large amounts of cargo, or otherwise reduce America's currently competitive, energy-efficient, and intermodal method of transportation. Thank you.

STATEMENT OF GARY WHYTE

Mr. WHYTE. This association is going on record as strongly opposing S. 809/H.R. 2959 and S. 810/H.R. 2962 in their present forms. The negative impact of these proposed laws have not been fully anticipated by the authors. There are two indepth studies now in progress. The national waterways study by the Corps of Engineers is near completion. The second study was initiated by Public Law 95-502, section 205, which is the original users tax law. The Congress was aware when they passed this legislation, that it would be necessary to examine the Nation's waterways as a vital economic resource. This study has yet to be completed. You must wait for this study to have the data base to take further action. We recognize this administration's efforts for fiscal restraint and believe, as a national policy, everyone should pay their fair share. We would like to endorse the efforts of the State of Oregon's Joint Legislative Memorial No. 14. The joint letter of June 18, 1981, from Senator Hatfield and U.S. Representatives to President Reagan requesting reconsideration of the administration actions on cost recovery. We would also like to go on record applauding the efforts of the American Association of Port Authorities, American Waterways Operators, National Waterways Conference, Pacific Northwest Waterways Association, the Port of Portland, and other organizations that are making every effort to supply your committee with statistics and valuable information on which you will be able to act.

When you become aware and fully informed, we are confident you will move in the direction of intelligence and depth that your committee must have to create legislation that benefits all citizens.

Mr. LINDSTROM. Mr. Chairman, in conclusion, I have Mr. Shaffer's statement, if I might.

Senator ABDNOR. Go ahead.

STATEMENT OF STEVE LINDSTROM, EXECUTIVE VICE PRESIDENT, PACIFIC NORTHWEST WATERWAYS ASSOCIATION

Mr. LINDSTROM. I'll try to speed it up. In Mr. Shaffer's place, I'm speaking on behalf of the Pacific Northwest Waterways Association today. We are grateful for the opportunity to testify and delighted that you're visiting the region of the country that is most sensitive to the negative impacts additional waterway user charges or cost recovery proposals might bring.

Since 1934, PNWA has proposed, supported and seen accomplished a wide variety of Federal investments in the Pacific Northwest and Alaska. Our membership includes farmers, engineering firms, labor organizations, civic bodies, construction companies, media, energy firms, port districts, irrigation districts, small businesses, and individuals. So, we feel that as a regional citizens' group, we pursue the comprehensive planning and development of our region's water and related land resources from a broad base. We were the original advocates of a navigation lock in Bonneville Dam so that commercial traffic could continue.

I might digress to note that this is something often overlooked, specifically by the previous panel, that navigation has occurred on the Columbia/Snake system since 1862, and only since the thirties has it been done with significant Federal investment.

Navigation did continue, then, after the river was harnessed for the production of electricity, flood control, and other uses.

The Federal investment in water-related public works in our region has been substantial, some $6 billion since 1902. Investments benefiting navigation total about 12 percent of that amount, often in order to allow the navigation to continue where additional improvements were made. That Federal investment has been directly repaid three times over through the sale of electricity, the sale of irrigation water and other income through Federal trade. That's the point that was made in Great Falls. I feel it bears repeating.

The national economy continues to reap dividends through the income produced by the crops and forest products we export. In 1980, $18,330,444,332 worth of Northwest exports were generated—I repeat, over $18 billion worth—the vast majority of them transported on the shallow-draft and deep-draft waterway network which keeps transportation costs down, and therefore competitive, in the international markets.

Essential to the success of this complex, integrated and intermodal system is the non-Federal investment. The Federal dollars have been but the seed. Port districts, irrigation districts, transportation companies, grain grower associations, handlers and processors of our produce, products, and byproducts have all committed billions more in structures and improvements to make the system work in its efficient and effective fashion. It is imperative the commitment to that partnership continue to be honored.

It is estimated that the export of agricultural products will double by the year 2000. Much of that growth will be found in the Pacific Northwest and Alaska. Because of the need to respond to that demand, we must not only sustain our existing shallow- and deep-draft system, but we must seek ways to enhance and improve it.

Pursuit of several additional goals also require continued maintenance and improvement of our waterways system:

One, maintaining a viable, competitive transportation system;

Two, minimizing inflation, economic dislocation, and unnecessary fuel consumption;

Three, improving the U.S. competitive position in world markets;

Four, preventing the shift of cargo to Canadian or other foreign ports; and

Five, continuing to recognize the value of the shallow- and deep-draft waterways as an inseparable element of an efficient, flexible, and vital national transportation system.

We heard from the previous panel, if I might digress again for a moment, that only 24 cents per bushel would be added should the grain carriers have to add a cost of maintenance and operation to their delivery of grain to Portland. I emphasize that would only deliver grain to Portland. In order to get out to the mouth of the Columbia, we have to add at least another 2 cents per bushel, therefore making a 4-cent minimum difference in a world marketplace for the sale of grain where sometimes a quarter of a cent per bushel makes or breaks a multi-million-bushel sale.

We find the current legislative proposals for additional user charges to be objectionable for three major reasons:

First, no composite determination has been made of total assignable or recoverable cost incurred for commercial navigation and ports;

Second, extreme imbalance between transportation modes and disruption or diminution of several express national goals would occur if additional cost recovery is attempted; and

Third, user charge/cost recovery proposals now under consideration do not provide for the determination, collection, banking, allocation, or disbursement of user taxes.

I digress for a fourth—and this is imperative to be considered, especially as people volunteer to pay their own expenses for the sake of coal movement—there has been no regulatory relief proposed or no streamlining of the permitting process as originally included as part of the sweetener to the local programs. We have seen no legislative programs that speak to that with the exception of, I believe, the bill introduced on the House side, and that does not get into the technical ramifications.

We feel the administration's proposals are vague, simplistic, and fail to address the inseparable transportation needs of our region and the country, especially since transportation here plays such a crucial role in marketing our products.

We invite your attention to the resolution our membership adopted on June 26, 1981, at our midyear meeting about the proposed user charge and cost recovery mechanisms, it further elaborates on our position.

I would also point out that the proposal to build a new lock at Bonneville should not be lumped with the proposal to deepen it below 45 feet. The replacement lock at Bonneville is as far as we are conerned, sustenance of an existing system, even though it involves, in a technical sense, new construction. It would not be expanding or enhancing a new system. It is vital to the finishing of the development of the Columbia system that the Bonneville lock be built, and I would hope that you'd remember that it is a separable new construction item.

In closing, PNWA urges that before Congress acts, it take a close, hard look at all the direct and indirect impacts of additional cost recovery proposals for navigation; review the section 205 report and evaluations of it; and, pursue changes to waterborne cost recovery policies only in the light of the total transportation needs of our country.

Our organization will be looking at the 205 study at our annual meeting in October. We promise you followup testimony as those pieces of information become available.

Thank you very much.

[The resolution referred to follows:]

RESOLUTION ADOPTED JUNE 26, 1981 BY THE
PACIFIC NORTHWEST WATERWAYS ASSOCIATION

WHEREAS the Pacific Northwest Waterways Association is dedicated to the comprehensive planning and development for water and related land resources in the five-state area of the Pacific Northwest and Alaska;

WHEREAS the Pacific Northwest Waterways Association supports the maintenance and improvement of the water transportation system in the nation and in the Pacific Northwest and Alaska;

WHEREAS waterborne commerce plays a dominant role in Pacific Northwest and Alaskan foreign trade;

WHEREAS the Congress is presently discussing shallow-and deep-draft user charges;

THEREFORE BE IT RESOLVED that the primary objective of any transportation or port development legislation should be to improve the nation's transportation system and to improve our position in world markets; and that any proposed legislation should:

o Maintain a viable, competitive transportation system.

o Minimize inflation, economic dislocation, and unnecessary increases in fuel consumption.

o Minimize the negative impact on United States competitiveness in world markets.

o Minimize shift of cargo to Canada or other foreign ports.

o Minimize disruption to the relative competitive position of ports.

o Recognize that the inland shallow-draft and deep-draft waterways together with interfacing modes make a national transportation system.

BE IT FURTHER RESOLVED that any proposed user charge legislation must be developed with far better knowledge about the impacts than is available now, including the results of the Section 205 Study and additional studies of the impact of proposed legislation on the port system, the communities which operate port facilities, on the overall transportation system of the United States and on the national economy;

BE IT FURTHER RESOLVED that before any proposed user charge legislation is enacted by Congress, the appropriate committees of Congress hold public hearings throughout the various regions of the country, specifically including public hearings to be held in the Pacific Northwest and Alaska; and,

BE IT FURTHER RESOLVED that this Resolution be transmitted to the Congressional delegations representing the five-state area of the Pacific Northwest and Alaska.

* * * * *

Senator **Abdnor**. Thank you. I detect a common consensus developing that if you were to have something in the way of a revision of the current arrangement for financing, that you support Senator Hatfield's approach; is that correct?

Mr. **Ellis** That's correct as far as I'm concerned.

Mr. **Lindstrom**. Some of us haven't had a chance to review it yet, and without specific instructions from my membership, I'd be reluctant to agree with that. However, I can't say they will reject it, either. We will be looking at it in a month or two.

Congressman **Clausen**. You know, Mr. Chairman, with this panel and the previous panel, the issue of equity in competition seems to come up, and I'm going to ask unanimous consent that we be permitted to submit some questions to this panel and the previous panel so that we can really pin down some of these factors with regard to the so-called equity in competition.

I think it would be extremely helpful for purposes of the record.

Senator **Abdnor**. Yes, very good.

Congressman **Clausen**. I'm assuming that both witnesses would be willing to respond to those questions?

Mr. **Lindstrom**. We'd like to.

Mr. **Brix**. I'd welcome it.

Congressman **Clausen**. Now, the inland waterways user tax impact study—and I really should know the answer, Mr. Brix—do you know when that study will be completed?

Mr. **Brix**. Well, it's either the first or the last of September. I think the last of September.

Congressman **Clausen**. OK, is that tied in with the section 205 study?

Mr. **Brix**. Yes.

Congressman **Clausen**. OK, fine. That answers my question.

Now, you also said one other thing; that the system that's working now would be ripped apart, established economic pattern would be destroyed. Could you elaborate on that a little bit?

Mr. **Brix**. I guess in two areas. One, we have aluminum plants, forest products plants, many very large grain elevators, other industrial facilities, which have been constructed on the rivers—on the Columbia River and the Snake River—into the billions of dollars of investment based on the fact that water transportation, both shallow-draft and deep-draft, was available and would be available. This investment in these districts have been made based on that, and I think you'd cause severe economic disruption and waste of money that's already been spent by changing the user tax system.

Congressman **Clausen**. All right.

Senator **Gorton**. Mr Brix, I have a couple of questions, if I may.

In your statement, you speak of the energy efficient nature of barge transportation and comparing the number of tons which can be carried per gallon of fuel with the railroads and with the trucks.

Was the thrust of the presentation on behalf of the railroads, however, correct in stating that most barge grain traffic is not just simply by barge but has involved a significant truck component before the grain is placed on a barge so that the overall energy efficiency of such transportation is somewhat closer to even?

Mr. **Brix**. I think that's fair. The truck's portion varies, but all grain is trucked to the river before it goes on a barge.

Senator **Gorton**. Now, if I may follow up on that—and this is not necessarily only for you, but for all of you, and I've asked this question earlier today as well.

Assuming that the Congress feels that some change in the present system is necessary and that it should be somewhat more closely oriented to costs generated by particular types of transportation, water transportation in particular, rather than the approach of Senator Hatfield, but nevertheless is willing to accept the proposition, which all of you make, that to go to the administration's proposal would simply be prohibitive and would destroy the investment we have already made in many, many port facilities, what is a limit on cents per ton which would be an appropriate user fee if we were to use that as a basis?

Again, I assume that 1 or 2 or 3 cents per ton would not significantly change the mix of transportation at the present time; but, on the other hand, on the Columbia River that entire recovery would do so drastically. Where in between is something which you all would consider as something that you could live with and retain at least a lion's share of your present business and efficiency?

Mr. **Brix**. I don't know where that point is. I think that if we are going to address this on that basis, that's something that our industry would be able to come up with, but we are now paying a user fee, which will go to 10 cents. We agreed with the Congress that this was something that we could live with 3 years ago. This is our sharing of the Federal cost.

One or two cents more, I agree, isn't going to make a difference. I don't know where the point is beyond that.

Senator **Gorton**. Could I add to that question? What is your estimate of the percentage of your business which you would lose to railroads or just lose period if we were to have total cost recovery?

The railroad sort of fudged on what they thought that would be. Are you more willing to predict how great the loss would be?

Mr. **Brix**. I believe that it would be somewhere in the neighborhood of 80 percent of our business that would be lost. Part of that would be lost because of the taxes on the barging portion, and the rest would be lost because the ships would not come to Portland.

Senator **Gorton**. I'd be happy to have any of the rest of you comment on this question if you wish.

Mr. **Garside**. I'd like to make a comment on that, if I may, Senator. When the railroads referred to the return on their freight operations as differentiated from their other operations, they talked of a very modest rate of return. They didn't address the thrust of your question, which is how much could we increase our rates and still compete; what, in fact, is the rate of return on grain, per se, in the freight operations of the railroad?

I think one of the gentleman on the previous panel talked about history of rate making on the Columbia River. I'm somewhat familiar with that, having done a little bit of spying on them since the late 1950's, and that is not a set number that the railroad uses. At some point, for competitive reasons or whatever else compulsion they may have, those rates go up and down.

Witness their recent addition of unit rates, which I don't know the relationship of that to the earnings of the 2 percent overall. So when you say what could we go up and maybe the question is better answered as what can the railroad go down?

Senator Abdnor. Thank you. I was just thinking of all the testimony I've heard in Washington and now on the road, and it seems to me, as Mr. Stockman testified, it would cost around 3 to 5 cents a bushel more to put in his program.

Senator Gorton. Three to nine.

Senator Abdnor. Three to nine. I'm sorry.

Anyway, the cost of shipment down the Mississippi system will increase about 3 to 9 cents per bushel for grain shipped to New Orleans. We had people come in and testify it would cost more like 30 cents. That's on the Mississippi.

Out in Montana, they thought 20 cents. On the Columbia and Snake, it would seem to me that it would probably cost more for the additional moneys for shipping on the Snake and Columbia than it would the Mississippi. So I'm confused. Have you got any comments on this figure of from 3 to 9 versus 30 cents?

Mr. Ellis. Some figures that we have done, we figured that on a 40,000-ton ship it could cost as much as $67,000 additional if this was all done on a user charge. So you're talking about over $1 a ton, a $1.50 a ton.

Senator Abdnor. What's that work out to?

Mr. Lindstrom. Divided by 33 gives us about 5½ cents, roughly, almost 6 cents a bushel.

Senator Abdnor. It's in the ballpark.

Mr. Lindstrom. Now, that's only the waterborne portion.

Mr. Ellis. That's only the deep sea portion.

Mr. Lindstrom. Now, that doesn't speak to the change that might occur upsystem in Montana, South Dakota, Wyoming, Idaho, where drastic change in transportation modes would lift the lid off the kettle on the competitive prices that are now charged up there getting the wheat to the water.

Senator Abdnor. As I remember, Mr. Stockman also said that the waterway system's pretty well fully matured. Do you agree with that?

Mr. Brix. I don't agree with that at all with regard to the Northwest. Our last lock was completed in 1975 on the Snake River. We are just developing our traffic. We have exceeded all projections, as I mentioned earlier. This waterway's in its infancy, much as is the waterway into Tulsa.

Senator Abdnor. It's quite a ways down the road before you reach your full potential? Is that what you are saying? Nobody really knows what the potential is.

Mr. Brix. We don't know, but I think we are 10 years or more from that point.

Mr. Garside. I might add, if there is a finite amount of resources in those areas which are presently serving the consuming area, as those resources are expended, then some of the resources in the area that can be and is served by the inland waterway will come into play.

As that happens, then many, many tons of materials that presently do not move will move on this waterway system, simply because water will be at a low-level rate. Witness, for example, the use of gravel in this area. It basically originates in local areas. As that's utilized and spent, we'll have to move further up the river. Limestone—there's great deposits up on the Snake River of limestone that has never been utilized, which one day will come into play.

The expansion of the agricultural area tied in with irrigation is growing and will continue to grow.

Senator Abdnor. Well, this is, I realize, only one area of your cost, but according to Mr. Brix, you said a recent study indicates that on the average barges carry a ton of freight 514 miles on 1 gallon, and railroads can do the same for 202 miles, and you stated the truck figure is 59 miles.

With that kind of an advantage, wouldn't you have to assume that you could pick up more of these costs, particularly as the transportation becomes greater? I mean larger volume of shipping. For instance, we are told the Bonneville lock is absolutely necessary.

Could you see any way at all that on a gradual phasing in where most of that cost could be picked up by the barge industry on the lock at Bonneville?

Mr. Brix. I think this goes back to Senator Gorton's question earlier that we have to look at the rail as compared to the truck/barge combination. It's very competitive today. The railroads seem to set their rates according to the truck/barge rates. I don't believe that we can have a phased-in system of taxation for these costs. I think it would destroy the developing system.

Senator Abdnor. Yes, but the trucking industry is really separate from this. I know some places that trucks moved all the way to the market, they even go coast to coast. So I'm just thinking specifically in this area of water development facilities if, by gradually phasing in, if most of it couldn't be absorbed at least in some areas.

Mr. Lindstrom. Mr. Chairman, if these kinds of charges were phased in in the waterways while at the same time other subsidies were phased out to competitors and equity was retained across the board, it might be a far more acceptable prospect than just speaking to the narrow arc of the total transportation mode the waterways represent.

We are talking about several hundred million dollars' worth of dredging and operations and maintenance in the waterways system for fiscal 1982, for example. We see as much as $4.3 billion tagged in the railroad area. We see untold millions in other transportation modes. We see a prospective change, for example, in the airports' method of financing. If these are brought along together with minor adjustments on an annual basis that over the period of a decade would approach equity that would be far more consumable to us as a segment of the transportation business than a tremendous impact in one narrow part of it.

Congressman Clausen. That goes to the importance of the question that I'm going to be submitting to all of you and that is how do we arrive at what we call this equity in competition and what are all of the factors involved in this so that there can, in fact, be some measure of uniformity in the various modes and the application of taxes and that sort of thing.

Because we hear all of these allegations, and I think some of that may very well be answered when we extract from you your perspective on what really constitutes the factors in this equity of competition formula we arrived at.

Mr. **Brix**. Senator Abdnor, we are today competitive within half a cent a bushel with railroads on moving grain, for example. There's no room for absorbing additional costs, so I believe a phased-in tax would just be going broke more slowly than a tax that is put in a 100 percent today.

Senator **Abdnor**. Is that everything, or in competition with unit trains? They're quite a bit lower, aren't they? We heard testimony in Montana that single-car charges are more than unit trains. That's a considerable less figure. Can you even compete with the unit price?

Mr. **Brix**. It depends on how far away it is. As it's further from the river, we're less competitive, because the trucking is more expensive.

Senator **Abdnor**. If they're equal, water versus the railroads, you'd hold your own? It's the trucking?

Mr. **Brix**. Equal in distance, yes.

Senator **Abdnor**. Well, thank you.

Congressman **Clausen**. A lot of variables.

Senator **Abdnor**. You bet. I'll tell you one thing, we'll take a good look at the study and the additional input you have. And after the 205 study we'll be happy to receive you views.

Mr. **Lindstrom**. Thank you. We are delighted to be here.

Senator **Abdnor**. Our next panel is Lloyd Anderson, George Sellar, Dick Lawrence, and Melvin Shore.

Gentlemen, you can be seated in any manner you care to.

STATEMENT OF LLOYD ANDERSON, EXECUTIVE DIRECTOR, PORT OF PORTLAND

Mr. **Anderson**. Senator, I'm Lloyd Anderson, executive director of the Port of Portland. We appreciate the opportunity to present our material to you today and are pleased that you would come out on the Columbia River system and observe firsthand, as you did yesterday, Senator, some of the problems and I think opportunities we have. Testifying with me today will be George Sellar, who is assistant manager for Port of Chelan County upstream on the Columbia waterway system; Dick Lawrence, who is the executive director of the Port of Vancouver; and Melvin Shore, who is director of the Port of Sacramento.

I think, first, probably more dramatically than any other region, the user charge legislation proposed by the administration will have a tremendous negative impact on the Columbia waterway system. In fact, we clearly see and feel it's accurate to label the administration's bill as a Columbia River closure legislation. The charges are high, and we feel the penalties associated with it are so serious to this system that it would seriously hurt our future.

I think, from the questions you have been raising this morning and this afternoon, it might be appropriate to touch on a couple of points that need to be mentioned.

I think, first, it's important that you separate the specialized activities particularly associated with coal from the rest of the demands of the waterway system. The coal demand—facilities for coal are significantly different than the bulk of the rest of the cargo moving out of the United States, and to try to categorize both in the same group and out of that expect a system that is going to create the kind of equity we are after, I think, would be difficult.

The question is always raised as to whether we have enough money, and I think it's clear from the record of what's gone on in the last several years in the way of developing new waterway projects that if there is money, it certainly hasn't been spent on a waterway system and that there seems to be a need for new money to finance new projects.

Therefore, if you are going to have a system of new charges or new ways to raise money to finance the waterway system, it would be important to carefully look at how that system is developed so that it doesn't cause any diversion of cargo from one port area to another when you have got substantial investment—or from one country to another; namely, out of the United States through Canada or through Mexico.

On this question of costs, I think it's clear that if you have a cost that runs anywhere from $5,000 to $15,000 per vessel more for a vessel coming into the Columbia River system, that that vessel could very easily divert to another harbor and do it because they could save money.

There's the need, I think, if there's going to be money to finance a new waterway— the new waterway program—a need for national standards which you people develop or the Corps of Engineers or others develop and then an application of your normal benefit/cost ratios in the financing of those programs so that you have, then, a charge or an increased financing revenue coming in on charges that are imposed and some standards or guidelines that become the basis of you setting priorities as to how that money is spent.

I think it's important to mention again, as has been mentioned earlier, that this system on the Columbia River is a developing system. It's not mature like the east coast. It hasn't had 150 or 200 years of Federal moneys, 100 percent Federal moneys financing the system. It's a system which is just beginning. It just was slack water to Lewiston within the last 6 or 7 years, so we are just beginning and we need on the Columbia River system clearly more time before we are able to withstand the kind of impact that would come from full cost recovery proposed by the administration.

Mel Shore will touch on some of the other objectives that the ports have with reference to the development of any kind of a system of charges. And I think it's important to look at those when you are looking at the development of new legislation.

I think it's also important to look at the shallow and deep draft as a system; not just as different segments, so that when you look at the development of a waterway system, it includes both shallow and deep draft.

Finally, I would say that the legislation which has been proposed by Senator Hatfield meets substantially many of the objectives that at least a large number of the ports in the United States are trying to accomplish, and we feel that, in fact, it will go a long way toward raising the money necessary and accomplishing our goals.

At this point, then, I'll turn the next remarks over to George Sellar from Chelan County.

STATEMENT OF GEORGE SELLAR, ASSISTANT MANAGER, PORT OF CHELAN COUNTY

Mr Sellar. Thank you, Lloyd. My name is George Sellar. I am the assistant manager of the Port of Chelan County. I appreciate the opportunity to testify and commend you during this recess for making yourselves available to so many of your constituents across the country.

The Port of Chelan County is on the Columbia River at Wenatchee. There presently is no barge traffic to our area because of lack of navigation locks in the Public Utility Dams. My specific duties with the Port District is a long-range goal of bringing this fuel-efficient waterway mode to the upper Columbia River. Hence, my interest in the user fee legislation.

The main commodities that are moving on the Columbia/Snake River system right now are agricultural products and wood products, with the largest tonnage being wheat. The inland waterways have had a user fee in place since 1978 when the imposition of the 4-cents-a-gallon tax, which is set to automatically escalate, went into effect.

When this first fee was imposed, it added 9 cents a bushel to the cost of wheat delivered to a lower Columbia Port. This cost, of course, is initially paid by the farmer and he hopes to recover this ultimately in the cost to the buyer. With the export market playing an increasing role in the sale of our surplus foodstuffs, we, as a country, are taking great strides in the balance-of-payment problem. I feel this is of great importance to every citizen of the United States, not just those involved directly with water transportation, to keep us competitive in this world market. The bill as written would deter, not enhance, the expansion of these sales.

If predictions are correct, by the year 2000, coal will be the largest export commodity from Washington and Oregon ports which again helps the balance-of-payments problem. It appears to me that a continuation of a strong viable rail and waterway system is going to be essential to achieve that desirable goal. The Federal Government has a sizable investment in the development of waterways and, this is matched by at least 3 to 1 from investments by private and public agencies in the development of landside facilities.

I feel the imposition of any user fee, but particularly a segmented user fee, will so severely jeopardize the system that not only expansion, that I am interested in, but the entire system itself may cease to operate and the goods tranferred to much less fuel-efficient modes of travel. This, in turn, gives us more, not less dependency on OPEC nations.

If user fees are to be imposed, and I reiterate "if," because I think you will find the present system with some fast-tracking a good one, but if user fees are imposed, it is imperative they be uniform. This is in the best interest of the entire country, and I would recommend Senator Hatfield's approach to this uniformity.

I commend you and the administration for looking at some of the ills of the Nation, but I suggest to you that a thorough examination of this patient will find him alive and well, serving his country efficiently and not in need of major surgery.

Thank you.

Senator **Abdnor**. Thank you, Mr. Seller.

Mr. **Anderson**: Dick Lawrence, from the Port of Vancouver, Wash.

STATEMENT OF DICK LAWRENCE, EXECUTIVE DIRECTOR, PORT OF VANCOUVER

Mr. **Lawrence**. Mr. Chairman, members of the subcommittee, my name is Dick Lawrence and I am executive director of the Port of Vancouver. Our port is 1 of only 11 designated terminal ports on the entire west coast. In fact, 3 of those 11 are on the Columbia/Willamette Rivers; namely, Portland, Vanouver and Longview. I am also here today representing the thoughts and sentiments of the Ports of Longview, Kalama, and Woodland, and indeed all the small ports whose future has, apparently, been consigned to legislative debate.

Perhaps I should start off here by saying that our feelings and remarks are directed 100 percent toward the adminstration proposal for a 100-percent cost recovery.

We do appreciate this opportunity to testify about the proposed waterway user fees and cost recovery legislation, and we are very appreciative that you have selected Vancouver, Wash. the original site of the Hudson's Bay Trading Co. and the first "port of commerce" in the Pacific Northwest. We are, however, concerned, frustrated and upset that we are being forced into the position of defending our existence and our efforts to develop the navigation system now in place, including that slack water navigation development, through to Lewiston, Idaho.

And this system here is only recently being completed, and its potential is now just being realized, as the man formerly said.

In the absence of any cohesive national transportation policy, we are here to testify about legislation that would cripple one of our Nations's major waterway systems. In face of a national imperative to lessen our dependence on foreign oil, we are here to testify about legislation that would make the most efficient mode of transportation artificially and unfairly inefficient. In face of a growing demand for our agricultural commodities overseas and the importance of a balance of trade we are here to testify about legislation that would make our agricultural exports less competitive abroad, and that would squeeze all the farmers from eastern Washington and Oregon, Idaho, Montana and North and South Dakota, to pay more for producing more, to pay more and make less, to be penalized for combining abundance of production with efficiency and cost effective transportation to our overseas markets.

This is not the "invisible hand of Adam Smith" at work. This is the unknowing pencil of untried insensitive theory. Senators, Congressman, we earnestly hope that you and your colleagues abide by the philosophy espoused a little earlier this morning, "If it ain't broke, don't fix it," for that is what we are here about.

The fact is, the Columbia/Snake River ports, to varying degrees, are tied to the growth of commodities that are generated in the Midwest, the West and our own "Inland Empire," just as we are tied to the growth, development, and stability of the "Pacific Rim" nations, which, by the way, surpassed Europe last year as our major trading partner. Now, we would offer the following three points for you consideration:

The operation and maintenance costs for the Columbia/Snake River system are approximately $13 million, $9 million for the deep-draft portion, $4 million for the shallow-draft portion. Yet, customs receipts should be far in excess of $170 million this year alone.

Now, if the Columbia/Snake River system can be said on that basis to pay its way, our biggest concern for a small port group is our local investments. In the last 2 months, the Port of Vancouver has committed over $50 million in terminal improvements, including a completely modernized grain elevator to be finished within 2 years. Our long-range plan could see another $70 to $100 million in construction.

The Port of Kalama will soon have a $40 to $50 million grain elevator begin construction. The Port of Woodland has started processing permits for a $60 million grain elevator. The Port of Longview anticipates investments of $60 million, and we are all optimistic that one or two coal terminals will locate on the Columbia in the next 2 years at an estimated $50 to $70 million each. In fact, the Port of Kalama just last week announced the signing of an agreement for the first coal terminal.

No. 3, if it can be said, in terms of jobs and payroll, taxes, commerce and industry generated, the Columbia/Snake River system gives the local, State, and Federal governments a substantial return on investment, consider also that the Federal Government does not truly pay the whole cost of operating and maintaining the system. The ports on the Columbia must provide disposal sites, easements, and right-of-way for maintenance dredging and maintain depts between the pierhead and channel at their cost.

I will eliminate the next few remarks, but when we are talking about user charges, really, how does one identify the community of users and equitably determine their share of costs? For example, then John Day Dam was not necessary for navigation; it was built for power generation, and navigation locks were a necessary consequence of its construction. Are we responsible for its maintenance or is some other group, or has it paid for itself already in terms of power generated an distributed?

The main fact is that the Pacific Northwest has only two major gateways to world markets, Puget Sound and the Columbia River. Now, none of us recall any informed discussion on the policy and wisdom of arbitrarily closing one off. None of us, in fact, know what the policy on waterways is anymore.

The next paragraph, as far as the traditional aspects of the Federal Government and the navigation projects, is in the record, and I trust that that will be continued.

Now, I'd like to make a very brief observation that not only the Federal Government helped develop the east, gulf, and Great Lakes port systems, but even here on the west coast, certain deepwater ports received tens of millions of dollars in Economic Development Administration funds to spur and assist their growth. The smaller Columbia River deepwater ports have relied almost entirely on local, public, and private investment to achieve their growth and development. Eight existing grain elevators in this area have or will modernize their facilities, two more are beginning construction, and two more are in the planning stages.

I think we have discussed sufficiently about rail and truck rates, but it would certainly be folly to think that truck and rail rates would not be raised if the waterborne transportation costs were forced up by this legislation. We'd all pay more for the goods we buy, but in this case, it would be self-inflicted and not related to the actual costs of transportation and operations. The inter-relatedness of our regional and national economy and the international marketplace cannot be ignored.

Now, we feel that if the administration's 100-percent cost recovery is continued and is put into effect, that our existence is threatened, in spite of all the hard work and risks that we have taken to build it in partnership with the Federal Government. So we know that it is very difficult, because we share and support your efforts and those of the administration to curtail and lower the costs of Government. However, the administration's proposal is not the way to do it, and we at this time subscribe to, as an alternative that should be studied, the legislation that's been introduced by Senator Hatfield, S. 1586, as being a constructive and thoughtful alternative to the administration's proposal for imposing a full cost recovery on the waterways on a port specific or segment basis.

Now, the philosophy that I represent to you today and the philosophy represented in that bill is the philosophy upon which——

Senator ABDNOR. You have exceeded your 5 minutes by quite a bit. Will you wind up? We've got to get moving.

Mr. LAWRENCE. All right, thank you very much for your views, and we express our conviction and faith that your decisions will reflect the best interests of the Nation.

Senator ABDNOR. Sorry. We just have to move people along, because it's getting late.

STATEMENT OF LESLIE LEHMANN, MANAGER, GOVERNMENT AND PUBLIC AFFAIRS, NERCO

Mr. LEHMANN. Senator Abdnor and members of the subcommittee, I am Leslie Lehmann, manager of government and public affairs for NERCO, an Oregon-based coal and mineral development company. As the third largest western coal producer, we believe that coal exports to the Far East can help boost a depressed coal industry, provide economic benefits to the western United States, alleviate the national balance-of-trade deficit, and serve the strategic interests of the United States and our allies in breaking dependence upon foreign sources of oil.

NERCO is actively trying to market coal from the Powder River basin in Montana and Wyoming to Far East customers. We have competitive coal, and they are interested. But development of deep-draft ports on the west coast holds the key to finally unlocking coal exports to the Far East.

Against that background, NERCO supports the movement toward cost sharing for port development. But we believe that the administration's 100 percent user fee proposal has the potential to inhibit marketing of Powder River basin coal to the Far East.

None of the user fee proposals advanced so far to support port development would make or break America's position as a coal exporter. But a radical break with the past, as embodied in S. 809, would distort how, where and how fast export markets are developed.

It is worth remembering that much of the impetus for the Constitution and creation of a national government out of the Articles of Confederation was the need to develop a national commerce. This required a national capacity to build a public works transportation infrastructure and to eliminate obstacles to interstate and foreign commerce. Waterways, railroads, highways all required a national boost. And the Nation as a whole benefitted. The Nation literally was tied together by these monumental public works and policies.

Some have argued that established ports and coal exports to Europe will not be adversely affected by the administration's user fee proposal. Without necessarily accepting that conclusion, we do believe that western ports and coal exports to the Far East will be stifled.

Far Eastern countries look to coal imports of about 100 million tons per year in the near future. They prefer to buy some of these imports from the United States in order to diversify their sources of supply. Being more dependent than the U.S. on foreign oil sources, they are even more committed to increasing their use of coal. The administration has recognized this in its restatement of a national commitment to developing coal exports. And we have in the Powder River basin a source of coal which is price competitive and available in large and reliable quantities. Current excess production capacity assures that we can supply both U.S. and foreign markets.

But Far Eastern coal buyers have made it clear to us in our extensive marketing efforts that development of deep-draft coal ports on the west coast is essential before we can tap their markets.

On the west coast, Long Beach and Los Angeles are the only ports with in-place coal shipping capacity. The 4-million ton annual capacity of these ports is already being used, and expansion of these ports to handle more coal faces serious ground transportation and environmental obstacles.

The coal trade to the Far East, which will be served by long-term contracts rather than spot market purchases, eventually will be dominated by 100,000, even 150,000 deadweight ton vessels. A west coast port of about 60-foot capacity will be required to accommodate this traffic.

Superbulk carriers will dominate the trade because:

One. Ocean freight savings compared to smaller vessels are significant, between $3 and $5 per metric ton from the west coast to Far East destinations. This margin is enough to win or lose contracts.

Two. All major competitors to the United States (Canada, South Africa, Australia) already have deep-draft coal exporting ports.

Three. Far Eastern countries are scaling their ports and fleets to superbulk size.

Four. Powder River coal sales contracts will be large and long-term, magnifying the effect of bulk-carrier economies of scale.

Any change in port development policy which hinders development of a west coast deep-draft port or which suddenly requires coal to bear an unreasonable burden for individual port development could significantly increase coal prices and undermine our ability to market coal to the Far East.

A more moderate approach, which introduces market forces to port development without severely distorting and breaking with the pattern of historic development is much preferred. NERCO is studying the comparative advantages and disadvantages of the various user charge and port development bills. At this time, it appears to us that Senator Hatfield's bill (S. 1586) offers the best approach in moving toward more market-based port development without disrupting efforts to market coal to the Far East.

NERCO endorses a local cost sharing provision in order to introduce needed fiscal discipline in the allocation of capital among competing port development proposals. But that discipline can be applied short of throwing west coast coal export potential to the wolves with a 100 percent cost absorption requirement.

NERCO also believes that streamlining the long permitting process for port development is tied closely to a market-based port development policy. If users are to bear more of the costs of port development, they must have better control over the costs caused by delay in permitting and constructing port projects.

As a final note, it appears to us that the current debate is taking place in a moment of relative quiet on the world energy front. There is a current world surplus of oil. But that will not last. And we suspect that when this moment of quiet is over, coal exports will loom much larger as part of strategic national interest.

At that moment, it will not do to be caught short in our ability to export from both the east and west coasts.

STATEMENT OF MELVIN SHORE, PORT DIRECTOR, PORT OF SACRAMENTO

Mr. SHORE. Thank you, Mr. Chairman, members of the committee, my name is Mel Shore on behalf of the Port of Sacramento.

My written testimony has attached to it a list of 34 ports that I will be speaking to. Also attached is an attachment that these 34 ports around the country subscribe to.

The hallmark of that position paper is that there is indeed a U.S. port system, and I underscore the word "system." And we have defined it here, and it seems to be a commonly accepted definition: 45-foot draft or less. Above 45 feet we find that it is indeed feasible to have the marketplace test applied inasmuch as there is no local investment in place to speak of.

In those cases, the marketplace test can indeed take care of whether or not a coal port should be built here, there or elsewhere. But for 45-foot draft or less, we serve a wide variety of cargoes.

It is a basic system, and I would point out, sir, that the responsibility of the Federal Government in connection with international trade is certainly paramount. We feel that this is not a subsidy at all. I've heard that word used several times here today, but rather a true partnership in that the total responsibility for the ports is really one of the Federal Government, and the local ports have been subscribing to more than their share. When we hear the term "cost sharing," we frequently see ignored the idea that the port's already putting in a great deal of money in their local investments.

We have subscribed in our position paper to a very positive approach in answer to the administration's proposal. We believe that if and when and to the extent necessary the Federal Government requires additional funding to properly maintain and operate the channels and harbors 45 feet or less, that under those conditions a user charge should be applied, but it must be uniformly applied to avoid dislocations between the ports.

The total port system that's in place now is necessary not only for the international trade, but for the national defense of the country. I'm not speaking about the use of the Navy, but rather the cargo-handling capability of the United States. If and when this uniform user charge is applied, we think it should be subjected to detailed study by a task force and should ultimately be set by the Congress itself.

We do not believe that the 205 study we have heard referred to—first of all, does not even address deepwater ports. Second, it would not be in a position to take into account the various effects that would be brought about by any kind of a user fee. The dispensation of these funds should be made by Congress subject to the many things that Congress takes into account.

We believe that that has led to a very fine port system and one that should be maintained. By maintenance I mean that we have the ability to continue to grow, not just to continue at its present level and ultimately die, which is the inevitable result of merely maintaining the draft we have.

Thank you for the opportunity, Mr. Chairman. We commend you for your interest in this matter.

Senator ABDNOR. Thank you, Mr. Shore.

A moment ago, as Mr. Lawrence has said, "If it ain't broke, don't fix it." But I guess that's the source of the whole trouble. We are rapidly getting near the breaking point, or we wouldn't be in the position we are in today. And it's not only here but in other areas of the Government where we are concerned about social security or whatever other area we're talking about.

While all these other things are great, we recognize the limits. Correct me if I'm wrong, but I think you made the simple remark, "If we don't find some new revenues, there's no new projects."

Have you got any alternatives to offer us, gentlemen? Do you want to go ahead? You need the lock, we need deepening of ports. What's your solution for helping do this?

Mr. ANDERSON. I think all of us, Senator, have testified that we are supporting, if there is a need for more financing, the development of a uniform charge that could be imposed. And there are several ideas on how that could be accomplished. But the development of a uniform charge is suggested, for example, in Senator Hatfield's bill that would accomplish the objective hereafter; that is, to raise more money and permit the maintenance of the system and its expansion where necessary.

Senator ABDNOR. Mr. Anderson, have you had any of your counsel check into the rumors we hear that it violates trade agreements? Have you checked on that at all?

Mr. ANDERSON. There has been some discussion of that. I think that whether it's the increase of customs duty or whether it's some other uniform charge that is used as a means of raising the money, the goal would be to do it in a fashion that lays on the same charge in some uniform fashion on the ports of the United States, so you don't get the substantial diversion of cargo which we would see coming if you had it on a segmented charge as proposed by the administration.

Senator ABDNOR. Those are the things we've got to look at. I can assure you of one thing and I've said this since the outset, we've got to find some way to equitably involve everyone who receives benefits. But let's talk about the lock itself.

The Bonneville Lock—that has to be attributed principally to navigation, wouldn't it?

Mr. ANDERSON. I think that as Mr. Lawrence testified with regard to the John Day Lock, if any kinds of charges are imposed or costs that are laid to navigation, that's why you get, I think, a confusion of numbers. That is, you raised the question earlier as to what is it going to cost per pushel or per ton for cargo moving on this system or another system.

Well, you can look very carefully at what kind of charge is being dropped on such a place as John Day Dam and ask how much of that went—should be dropped onto the navigation part when, in fact, the lock itself may not be needed if the dam wasn't there. That is, you could barge cargo up and down that river without having the dam in existence. So if you build a lock, admittedly there are some costs associated with it, but has that caused you to drop it on the navigation system?

And so, depending on how you analyze that, you can come up with different numbers. But I think the message would be you are looking at anywhere from 30 cents to a dollar a ton coming in on the Columbia Way system if you have full cost recovery, and that is applicable to the deep- and shallow-draft parts of it.

So the answer is perhaps there are some charges that could be dropped on it from the expansion of the Bonneville Lock. The question how much you could attribute to navigation alone depends on how you go about analyzing those numbers.

Senator ABDNOR. Your big thing is locks that make your part of the river efficient, right?

Mr. SELLAR. That's correct.

If we look at the Port of Lewiston and their system, they opened up in 1975 and already they have exceeded the year 2000 in projections in the tonnage that is going through that particular port. So I think the potential is there, and I think that in the future if there can be some—maybe a combination of things.

Certainly Senator Gorton alluded to the fact that some of the more mature ports perhaps can afford some of those things themselves, and perhaps some incentive to them in the way of permit proceeds might be well to let them participate in that. At the same time leave the present system intact for developing the systems that cannot afford this particular approach. And third, perhaps a measure of all of these things and some cost sharing by port districts, by public utility district, by users themselves and some combination of this that will, of course, bring navigation further up some rivers.

Senator ABDNOR. If these fees were phased in, do you think the use would build up enough?

Mr. SELLAR. I think, Senator, that will depend on the fee. I think some type of uniform fee phased in could even be an advantage. Certainly a segmented fee, whether it was phased in or not, would be very detrimental to the expansion of navigation.

Senator ABDNOR. One other question I want to ask just so you know what we're up against. You'd be amazed how many of the ports now want deep water seaports, and they come at some expense. Have you got any thoughts, if we were to continue on the way that we have been doing it—and I don't think that's going to be possible—but if we were, how do we determine who gets them and who doesn't?

Mr. SELLAR. Senator, I certainly do not profess to have heavy expertise in deep water ports, being on the Columbia River. However, from listening to my colleagues that do have that expertise, it appears to me that there is some uniformity that—beyond the 45 feet dredging process; that economics should possibly decide where those are. There seems to be some uniformity for that area, although that's not my area of expertise and perhaps Lloyd or someone else might want to answer that.

Senator ABDNOR. There's got to be some criteria.

Mr. ANDERSON. I think the posture that both the ports of which we are a part—that Mel Shore represents—I think our view would be that if you are looking at a national standard of let's say 45 feet or 40 feet—but, let's say 45 feet—and if you adopt that as a national standard for the major channels of the United States, then go through a normal procedure for establishing the priority of the allocation of Federal resources to finance that, you are setting up or kind of simply expanding the system you have got now.

If you impose a uniform system of charges for financing up to the 45 feet, you have a resource to take care of it. Beyond 45 feet where you are looking largely at the needs for supplying deep channels for coal I think the posture of the ports around the country would be that the recipient or the user there should have the money coming out of the charges necessary to accomplish that objective.

Senator ABDNOR. Yes; but should all the ships pay the same or just those who need the extra depth?

Mr. ANDERSON. I think you'd have to impose some sort of a charge on the cost in excess of 45 feet.

Senator ABDNOR. Yes; but if they need the 45——

Mr. ANDERSON. Yes; if you've got a ship that needs a 50-foot draft or a 55-foot, you would not lay on the total cost for the whole channel.

Senator ABDNOR. Not the one that would need it in the same harbor. A boat that would need a port that was only 40.

Mr. ANDERSON. Yes.

Mr. SHORE. Just to enforce what Mr. Anderson said, the feeling is that we have a uniform requirement for many of the cargoes of this country. You are, I'm sure, alluding to the sudden demand for very deep channels, for 55 feet, for example, for the handling of coal.

We have not had this kind of demand. We have had a continuous demand that Congress has been unable to fund. We are talking about a procedure to find the normal requirements for ports. Certainly not every port should have 40 feet even or even 45. Each one has to be weighed on its separate merits, and this is the kind of input that Congress has, along with the numerical studies done by the Corps of Engineers.

The other factor is that in the task force approach of setting the user charge that might be necessary, one of the criteria that would have to be taken into account by such a task force and the reason we recommend it be given to a task force rather than part of the bureaucracy, is that you must take into account how much money is needed, also how much money can you afford to extract from the user; not the port.

The port is not the user. The user is either the cargo or the ship. There is a limit to how much you can take out of that. The amount of money available has to be apportioned among all of the demands that are there. That, of course, is what Congress has done. We think they have done an admirable job. If you don't have enough money, you must go directly to the users and use that money accordingly.

Senator ABDNOR. Thank you.

Senator GORTON. George, one factual question. To make the Port of Chelan County, do you require one additional set of locks?

Mr. SELLAR. No, sir, it would be three.

Senator GORTON. Would the Port of Chelan County and other beneficiaries of that set of locks be willing to contribute any significant amount to those capital construction costs as opposed to operation and maintenance?

Mr. SELLAR. I think it would be appropriate to have some participation. It would have to be, at least in its infancy, to the point where it made us competitive. Then as traffic picked up, perhaps that could increase. But I would be hesitant to give you a percentage figure whether that could be 20 percent or what it might be. But, yes, I think it would be appropriate to have some type of a joint venture in the future.

Senator GORTON. I'd like to commend Mr. Anderson particularly, because he did appear before us previously in Washington, D.C., and the rest of you, in the thoughtfulness of your approach toward this problem and the recognition that there is likely to be some change.

Again, I would like to ask of you what I have asked of many of the other participants here, and that is if, instead of taking the approach in Senator Hatfield's proposal, some kind of absolutely uniform fee, we were to take the proposal of the administration in the operation and maintenance field at something well under 100 percent, perhaps with a cap of no more than so many cents per ton of cargo, at what level, assuming that every port would have some such costs, what level would permit the substantial survival of the Columbia River ports at their present appropriate level of activity?

What share could they pay under that set of circumstances and still remain competitive?

Mr. ANDERSON. I think, first, Senator, I would want to say that the port, as Mr. Shore testified, is sharing in the cost now. We have invested in terms of the dollars and time in construction that took place between $100 and $200 million, probably have current assets of close to $1 billion in public investment alone. And I think as Peter Brix testified earlier, you are looking at well over $1 billion when you add the private as well as the public investment and then add to that the infrastructure that comes in from rail and highway.

So the notion, then, that we are willing to share in the cost of the system is already there. We have accepted it. We are in the business all the time of competing with Vancouver, Longview, Seattle, and Tacoma and elsewhere. The shifting of cargo from one port to another is done on a very narrow basis of cost.

And I think, for example, if a ship were to come into the Columbia River system, and it could save $10,000 by going to Vancouver instead of Portland, it would go to Vancouver. I think that's also true when they are 200 or 300 miles out into the Pacific, and they have an alternate of one place or another to go, they are going to go to the cheaper place, provided they've got an equal level of service.

One could assume you are dealing with very narrow ranges of cost when you are talking about shifting of cargo. And obviously more is going to shift as that number goes up.

The interesting thing is that if you have a shift like that occur, you say that you're going to have cost recovery or a share of cost recovery in the Columbia River system. And let's imagine for a minute that you had 10 or 20 percent diversion of cargo. Then that means that the either 80 or 90 percent that remains in going to have to pick up the 100 percent you are talking about or whatever percentage. You're going to have a toboganing effect.

Senator GORTON. Unless you have a maximum ceiling.

Mr. ANDERSON. Yes. That's correct. If you had a maximum cents per ton, then that toboganing effect——

Senator GORTON. That was really my question is what maximum cents per ton would not substantially adversely affect the Columbia River ports.

Mr. ANDERSON. Well, I think that my long winded answer was I don't know.

Congressman CLAUSEN. If I don't know, I won't say.

Mr. SELLAR. Senator, that's going to vary from commodity to commodity, particularly he handles at his port a large percentage of containers that may have higher value cargo on it, whereas, we may handle some lumber products or plywood, different bulk commodities that a—as much as a penny a ton or 2 cents a ton might even—not even allow that product to be exported. And take something like alfalfa pellets, something that is just marginal now for exports.

So it's just hard to assess any particular lid. It just depends on the diversity or the type of commodities.

Senator GORTON. Mr. Chairman, I have no more questions. I do, however, have a statement from the Port of Pasco, which I would like included in the record.

Senator ABDNOR. Without objection, it will be made part of the record.

[The statement referred to follows:]

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August 14, 1981

Hon. Slade Gorton
Senator from Washington
2988 Federal Office Building
915 - 2nd
Seattle, WA 98174

Dear Senator Gorton:

We are submitting the attached testimony for the record at your Congressional Hearing in Vancouver next Wednesday, the 19th.

For the reasons outlined, this area is bitterly opposed to any legislation which stifles our growth capabilities. Since our great country began, the government of the United States has used the development of waterways to enhance and develop our national goals when other modes of transportation were not available.

We in the Columbia/Snake River areas are the newest to develop, and we would like the same chance to progress which the older rivers in the East have had.

All additional costs incurred in construction, maintenance and operation of new projects would be passed on directly to the farmer. Any legislation along the lines of Amendments 809 and 810 will kill the Columbia/Snake River system. It should be noted that the user fees of four cents per gallon, which went into effect under President Carter's administration, affected the price per bushel the very next day. To move one bushel of wheat from Pasco to Portland reduced the price of wheat nine cents per bushel.

Your assistance in opposing any user fees and any additional fuel taxes is requested and appreciated.

Sincerely,

PORT OF PASCO

Jack E Price

Jack E. Price
General Manager

Enc.

Testimony before the Subcommittee on Water Resources
on Wednesday, August 19, 1981, in Vancouver, Washington

Mr. Chairman and Members of the Committee:

I am pleased to have the opportunity to comment on the Administration's deep draft and inland waterway user fee proposal. We are all aware of President Reagan's program for economic recovery concerning the user fee as it relates specifically to the Columbia and Snake Rivers.

There are certain facts which make the Columbia and Snake Rivers different from the older, more established rivers such as the Mississippi and its tributaries, the St. Lawrence and the Great Lakes. We are in our embryo stages of growth and only a very token amount of manufacturing and population line these rivers, and the rivers are primarily used for our farming communities. Some of the facts you may find interesting are these.

o The farming community uses the largest percentage (about 90%) on the upriver portion for movement of fertilizer and fuel for farming.

o Ninety percent of downriver cargoes are cargoes grown in the Columbia Basin, eastern Washington, Idaho, Oregon and Montana. The commodities that are moving are, for example, grain, hay cubes, hides, canned goods, etc.

o The majority of our farms in these areas are family owned and operated.

o Any escalation in the cost of the use of the rivers will be passed directly to the farming community. An example would be the fuel tax in the amount of four cents which was passed to the farmer the very next day it went into effect to the tune of nine cents per bushel. This was not absorbed by the barge lines nor was the price of the grain increased by nine cents. The farmer absorbed it.

o I say that the farmers in this area are "buying retail and selling wholesale," and any such things as user fees, which will escalate the cost of using the river, will cause the Columbia and Snake Rivers to become unviable as a transportation mode.

o As the proposals have come down from Capitol Hill as they are currently written with the barges coming downriver being assessed the applicable charge as outlined by the President's proposal and with the charges that would apply to the deep water ports at the end of the Columbia River, every 50,000 ton ship calling at the mouth of the Columbia would be assessed a charge of $63,000 per ship as compared to a much used facility at the mouth of the Mississippi River of $200 to $500 per ship.

o It is a foregone conclusion that the least expensive way to move one ton one mile is by water. With the current situation and the scarcity of fuel, it would appear that we would be foolish to tax these rivers to the point of no use and forcing the use of more fuel to move the cargoes to their ultimate destinations.

- Although it appears that everything points to the railroads lobbying for this user fee, the railroad industry cannot, with their old roadbeds now ready for replacement, with the limited number of cars, horrendous congestion at the deep water ports on railroad facilities, handle any more traffic without undertaking a massive updating of railroad facilities and literally spending billions of dollars and many years to gear up to handle the traffic which is now moving on the river.

- The 1944 Flood Control bill provided for dams to be built for that purpose (controlling floods) and the generators were placed in the dams to create revenue to pay for the dams and their upkeep. Exhibit A will give you the recovery factor at McNary Dam, not only for the cost of the dam but for the maintenance and operation.

It has been concluded at the many meetings held in the Northwest, without exception, that the Administration bill, as well as the Domenici Amendment, discriminates against the young rivers (the Columbia and Snake).

It also has been concluded that some way to recoup the cost of maintenance and operation of the dams and locks, the deepening of channels where necessary, it is the opinion of the Port of Pasco that serious consideration must be given to distributing the cost to the people who, in fact, are using the river in its broadest sense. The following facts should be considered.

1. Dredging the rivers is done to primarily remove silt, mud, sand, rock and gravel. It is a known fact that this material is distributed in the river from federally owned lands. Consideration should be given to this matter.

2. A tax should be made for each kilowatt generated at hydro-electric plants so wherever this kilowatt is used, it is paid for -- be it a community along the Snake River or a community in California or one in New York. This is a tax which would be paid for the use of the river.

3. The Hanford project with its tremendous use of water for cooling the water for generation of electricity -- here again a charge should be placed on each kilowatt generated and where this kilowatt is used the money should be collected.

4. The vast amount of water used by coal-fired generating plants should also be assessed in the same manner.

5. The fisheries people should be assessed a fee on the rivers for the taking of salmon which use the water for spawning which generates a tremendous revenue in sports fishing and netting for food purposes.

6. The cities up and down the Columbia/Snake Rivers take water from the river and sell it to the population. This water should be paid for by the cities and each person within the cities that uses the water.

7. In fairness, the farmers indicate that any farmer taking water from the river should be taxed, so that they take care of their fair and equitable amount of cost for use.

8. The small boaters should be taxed for using the rivers and using the locks.

9. The President's program for a balance of trade has been a very prominent part of his program. The balance of trade would be hindered greatly if the farmers find their retail cost of fertilizer, fuel and freight to transport their finished products so high that they have to shut down their farming operations, and we currently handle on the Columbia and Snake Rivers system, 220,103 tons (total tonnage of grain, fuel--farmers products and fertilizer and fuel needed to grow these products). It should also be noted that the farmer will be paying not only for the downriver but also for the upriver portion of commodities that they use.

10. Consideration also must be given to the fact that having these rivers navigable not only for the economy of the Nation, for the balance of trade for the Nation, for the employment of the Nation, food for the Nation and the world. Balance of trade for our country is a most important segment which has not been mentioned as it relates to the national defense of our country and is of extreme importance to our very existence.

11. We might add that when the Federal Government decided to build freeways throughout the United States, a tax was levied on every gallon of gas sold in the U.S.A. and every tire sold, regardless of whether or not the individuals purchasing the gasoline or tires used the freeways.

In summary, it is the thinking of the Commissioners and Staff of the Port of Pasco that not enough thought has been given to the fact that billions of dollars have been spent by Port Districts and other related businesses to locate on this fine river system. This would be to no avail if the President's program or the Domenici program are put into effect as they currently read. Therefore, we respectfully submit that serious consideration be given and that a bill be proposed which would take into consideration these areas of costs rather than those already proposed.

PORT OF PASCO
Jack E. Price
General Manager

July 30, 1981

Congressman **Clausen**. Well, all of you have been very complimentary in making note of the fact that we have come here for purposes of hearing what is a very important part of the process of the congressional committee that comes into the area. We have many people not only for input but also to observe. I think this can be turned around as well.

I want to join both Senator Gorton and Senator Abdnor in stating this not only involves this panel but all of those who have been appearing here. There has been a lot of thought that has gone into the statements that have been prepared, and I think it's particularly significant to acknowledge that there's a sort of trend developing here that says we are not just against everything but, in fact, we recognize maybe there has to be some alternative consideration being given, and I particularly want to say hello to my working colleague down in California, Mel Shore, a man who has a great deal of respect and credibility in the area of port management in California.

He speaks for a lot of people. Mel, I'd like to ask you have you had a chance to discuss this with the California Marine Navigation Counsel that represents some of the coastal facilities at all? Have you had a chance to run your testimony or the Senator Hatfield approach—have you run that by them at all?

Mr. **Shore**. No, sir, that opportunity will come next month when I speak before Seamac at their upcoming meeting. However, I can advise that some of the members of Seamac see things in different ways. Not all of the ports of this country subscribe to the position paper, unfortunately, that we have given.

But I do point out that 35 out of that subscribe, and we have only been at this process for 2 or 3 weeks. We believe that by fall the majority of the ports of this country will subscribe to this position, because they see the equity that's involved, and we believe that those who do not subscribe can also live with this procedure we have set forth.

Congressman **Clausen**. So you're saying that the basic concept as outlined in the Hatfield bill, if it's acknowledged that new funds are necessary, that a consensus seems to be forming around that concept?

Mr. **Shore**. Yes, sir, we think that the Hatfield bill has many attributes, and we want to work with Mr. Hatfield in bringing it in line with our position paper.

We think there's a lot of commonality between our position paper and his bill.

Congressman **Clausen**. As I think my colleagues know, Mr. Shore and some of the other harbor people throughout the country were a part of the meeting that Senator Hatfield and Senator Thurmond, Congressman Napier from South Carolina, and myself attended at the White House where we presented some of the concerns and details with regard to the administration proposal to Ed Meese and the White House staff.

And it was at that time that Senator Hatfield, I thought, made a very forthright and, I think, a very compelling presentation that will provide an opportunity for followthrough on the part of the White House. And so I think that point should be made, as I'm

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sure both of you are aware of the fact that this meeting did take place and we were quite privileged to be a part of that meeting.

Going right to the point, are you convinced that there's a need for more facilities, more port facilities, and it's going to require more money?

Mr. SHORE. There's no question in my mind, Mr. Clausen. Not only do we need more, but we need to do what hasn't been done for a long time. We haven't had an omnibus bill for 4 years, close on to 5 now. Obviously, the need for port facilities has not gone away. There's no question that there's some need for coal facilities as well.

Congressman CLAUSEN. All right, are you prepared to say how much more annually would have to be allocated to the building of a system of harbors and the facilities that are associated with it?

Mr. SHORE. No, sir.

Congressman CLAUSEN. What are we talking about, 100 percent or more a year?

Mr. SHORE. Certainly not sitting here, but we could make those figures available to you. We also have to recognize it has to be kept consistent with the ability to pay.

Mr. ANDERSON. I think the American Association of Port Authorities has done some forecasting of what the need will be at a Federal level, and we can provide that information to you if you'd like.

Congressman CLAUSEN. I would like to have that information.

How voluminous is it?

Mr. SHORE. I think what Mr. Anderson's referring to is probably boiled down to a pretty single number, but does not take into account the demand for some of the large coal ports where only three ports would require $3.4 million to construct, let alone maintain, and there may be a need for even more of those.

Congressman CLAUSEN. I think it would be helpful if you had as detailed a response as you could obtain from those who know the most about the capacity requirements for the future.

Again, I want to thank you all very much for taking your time away from your own schedules to come here and make this kind of presentation.

Senator ABDNOR. Thank you, Congressman Clausen. I appreciate your coming.

We'll introduce our next set of panelists after a brief recess.

[Recess.]

Senator ABDNOR. We'll come back to order here. Our next set of panelists is Phil Curtis, and Jack Hogan, and Captain Brian Turrell.

Mr. HOGAN. Mr. Chairman, Brian Turrell, vice president of Jones Oregon Stevedoring Co., will be first.

STATEMENT OF BRIAN TURRELL, VICE PRESIDENT, JONES OREGON STEVEDORING CO.

Mr. TURRELL. My name is Brian Turrell. I am vice president of Jones Oregon Stevedoring Co., Portland, Ore. I also have the authority to speak on behalf of other master contracting stevedores in the Oregon area.

The stevedoring industry provides the expertise, gear, and equipment and together with longshoremen that load and unload ships and barges. The payroll in 1980 for longshoremen and clerks alone amounted to $107 million in the Oregon area. When you include manufacturers in foreign trade, then you will find that the impact reaches $500 million and is projected to go to $2.3 billion by the turn of the century.

The foreign trade industry generated about $6 billion of imports and exports throughout the Oregon customs district in 1980. We have no intention of letting matters get out of hand to influence a reduction in this trade picture.

The 1979 direct/indirect and induced employment at marine terminals was responsible for $52 million in income taxes to the State of Oregon, and this is expected to increase in the next 20 years. We feel that we do not want to put another obstacle in the way of free and untrammeled trade with free countries and some not so free, when it directly benefits the States of Oregon and Washington and the United States in general.

We ask what is being considered to generate funds from other than shallow and deepwater vessels? What about the users of water through irrigation projects? What about the users of electricity generated by dams constructed on the rivers? There are many others who use the river who could also contribute and thus spread out the cost amongst many of those benefiting from rivers and harbors.

The stevedoring industry continues to invest millions of dollars in gear and equipment to load and unload ships and barges. The grain elevators are today spending tens of millions of dollars enlarging and modernizing their elevators. This is just to handle the projected increases in the export of grain. The grain originates not only from Oregon, Washington, and Idaho, but as far as Montana, and North and South Dakota. The grain moves by truck, rail, and barge to the elevators in the lower Columbia River where it is loaded to deep sea vessels.

All port investments are dependent upon deep, well-maintained channels with the current development of facilities necessary to all citizens to increase the exports and help balance our national budget.

As you have heard, all of the port authorities have faith in the trade through their ports and are investing hard cash to aid American importers and exporters to move American merchandise to foreign markets. Even taxpayers have shown their faith by voting for general obligation bonds for making the projects possible, even though it meant increasing their taxes. They know that the return is greater than their taxes. So why should the U.S. Government destroy these dreams and investments of citizens by legislating the ports out of business by unnecessary burdensome charges?

Please bear in mind that the shipyards in the Columbia and Willamette Rivers built hundreds of ships during World War II and are continuing to build barges. What does the Defense Department in Washington say about the silting of the rivers and harbors, making them inaccessable, because it is possible that the various ports might not be able to raise the funds to accomplish the dredging.

We are most concerned that if the rivers are not dredged—at least the Columbia River—to at least 40 feet as in the past, that the full cargoes of logs, lumber, wheat, container ships and many other bulk cargoes could not be loaded in the area. In fact, a minimum of at least 45 feet is much more practical. It only takes one shallow spot in the river to halt traffic. Also, what will happen to Port of Portland's $80 million drydock which is capable to handling ships which no other port of the Pacific coast can do?

Senators, I beseech you not to legislate the Columbia River out of existence.

STATEMENT OF BERNARD PILCHER, REPRESENTING THE OREGON AREA LONGSHOREMEN

Mr. PILCHER. I am Bernard Pilcher, representing the Oregon area longshoremen. We feel that bill H.R. 3977 will cost our country much of our export business due to the extra cost to the shippers. This will create more unemployment. Longshoremen who load ships will lose work. Barge workers, truck drivers, and railroad workers who haul cargo to the docks will lose work. These people, in turn, will not be able to buy cars, furniture, clothes, and many other items. This will cause the people who produce these items to lose work. All these people will not be paying income tax, but rather, will be drawing unemployment or welfare, causing more of a burden to the taxpayers.

Our farmers will not be able to compete with farmers in other countries—such as Canada—in farm exports such as wheat, fruits, and vegetables.

Bill H.R. 3977 will cause inflation due to the extra cost of products we have to import, such as sugar, pineapple, spices, and numerous others.

Thank you for the opportunity to present testimony on behalf of the Columbia River District Council of the International Longshoremen's and Warehousemen's Union.

STATEMENT OF JACK PRICE

Mr. PRICE. I am pleased to have the opportunity to comment on the administration's deep draft and inland waterway user fee proposal. We are all aware of President Reagan's program for economic recovery concerning the user fee as it relates specifically to the Columbia and Snake Rivers.

There are certain facts which make the Columbia and Snake Rivers different from the older, more established rivers such as the Mississippi and its tributaries, the St. Lawrence, and the Great Lakes.

We are in our embryo stages of growth and only a very token amount of manufacturing and population line these rivers, and the rivers are primarily used for our farming communities. Some of the facts you may find interesting are these:

The farming community uses the largest percentage—about 90 percent—on the upriver portion for movement of fertilizer and fuel for farming.

Ninety percent of downriver cargoes are cargoes grown in the Columbia Basin, eastern Washington, Idaho, Oregon, and Montana. The commodities that are moving are, for example, grain, hay cubes, hides, canned goods, and so forth.

The majority of our farms in these areas are family owned and operated.

Any escalation in the cost of using the rivers will be passed directly to the farming community. An example would be the fuel tax in the amount of 4 cents which was passed to the farmer the very next day it went into effect to the tune of 9 cents per bushel. This was not absorbed by the bargelines, nor was the price of the grain increased by 9 cents. The farmer absorbed it.

I say that the farmers in this area are "buying retail and selling wholesale," and any such things as user fees, which will escalate the cost of using the river, will cause the Columbia and Snake Rivers to become unviable as a transportation mode.

With the proposals from Capitol Hill as they are currently written; with barges being assessed the applicable charge as outlined in the President's proposal, and with the charges that would apply to the deepwater ports at the end of the Columbia River, every 50,000-ton ship calling at the mouth of the Columbia would be assessed a charge of $63,000 per ship as compared to a much used facility at the mouth of the Mississipi River of $200 to $500 per ship.

It is a foregone conclusion that the least expensive way to move 1 ton 1 mile is by water. With the current situation and the scarcity of fuel, it would appear that we would be foolish to tax these rivers to the point of no use and forcing the use of more fuel to move the cargoes to their ultimate destinations.

Although it appears that everything points to the railroads lobbying for this user fee, the railroad industry cannot, with their old roadbeds now ready for replacement, with the limited number of cars, horrendous congestion at the deepwater ports on railroad facilities, handle any more traffic without undertaking a massive updating of railroad facilities and literally spending billions of dollars and many years to gear up to handle the traffic which is now moving on the river.

The 1944 flood control bill provided for dams to be built for that purpose—controlling floods—and the generators were placed in the dams to create revenue to pay for the dams and their upkeep. Exhibit A will give you the recovery factor at McNary Dam, not only for the cost of the dam but for the maintenance and operation.

It has been concluded at the many meetings held in the Northwest, without exception, that the administration bill, as well as the Domenici amendment, discriminates against the young rivers—the Columbia and Snake.

It also has been concluded that some way to recoup the cost of maintenance and operation of the dams and locks, the deepening of channels where necessary, it is the opinion of the Port of Pasco that serious consideration must be given to distributing the cost to the people who, in fact, are using the river in its broadest sense. The following facts should be considered:

1. Dredging the rivers is done to primarily remove silt, mud, sand, rock, and gravel. It is a known fact that this material is dis-

tributed in the river from federally owned lands. Consideration should be given to this matter.

2. A tax should be made for each kilowatt generated at hydroelectric plants so wherever this kilowatt is used, it is paid for—be it a community along the Snake River or a community in California or one in New York. This is a tax which would be paid for the use of the river.

3. The Hanford project with its tremendous use of water for cooling the water for generation of electricity—here again a charge should be placed on each kilowatt generated and where this kilowatt is used the money should be collected.

4. The vast amount of water used by coal-fired generating plants should also be assessed in the same manner.

5. The fisheries people should be assessed a fee on the rivers for the taking of salmon which use the water for spawning which generates a tremendous revenue in sports fishing and netting for food purposes.

6. The cities up and down the Columbia/Snake Rivers take water from the river and sell it to the population. This water should be paid for by the cities and each person within the cities that uses the water.

7. In fairness, the farmers indicate that any farmer taking water from the river should be taxed, so that they take care of their fair and equitable amount of cost for use.

8. The small boaters should be taxed for using the rivers and using the locks.

9. The President's program for a balance of trade has been a very prominent part of his program. The balance of trade would be hindered greatly if the farmers find their retail cost of fertilizer, fuel, and freight to transport their finished products so high that they have to shut down their farming operations, and we currently handle on the Columbia and Snake Rivers system, 220,103 tons—total tonnage of grain, fuel—farmer's products and fertilizer and fuel needed to grow these products. It should also be noted that the farmer will be paying not only for the downriver but also for the upriver portion of commodities that they use.

10. Consideration also must be given to the fact that having these rivers navigable not only for the economy of the Nation, for the balance of trade for the Nation, for the employment of the Nation, food for the Nation and the world. Balance of trade for our country is a most important segment which has not been mentioned as it relates to the national defense of our country and is of extreme importance to our very existence.

11. We might add that when the Federal Government decided to build freeways throughout the United States, a tax was levied on every gallon of gas sold in the United States of America and every tire sold, regardless of whether or not the individuals purchasing the gasoline or tires used the freeways.

In summary, it is the thinking of the commissioners and staff of the Port of Pasco that not enough thought has been given to the fact that billions of dollars have been spent by port districts and other related businesses to locate on this fine river system. This would be to no avail if the President's program or the Domenici program are put into effect as they currently read. Therefore, we respectfully submit that serious consideration be given and that a bill be proposed which would take into consideration these areas of costs rather than those already proposed.

STATEMENT OF JACK DURNEY, MAYOR, CITY OF ABERDEEN, WASH.

Mr. DURNEY. The Aberdeen City Council last week passed unanimously the attached memorial.

I would appreciate your entering the memorial as testimony at your August 19, 1981, hearing.

[The memorial follows:]

RESOLUTION NO. 1981-44

A MEMORIAL TO THE PRESIDENT OF THE UNITED STATES
AND TO
THE UNITED STATES CONGRESS
PERTAINING TO THE
FEDERAL ROLE IN THE ESTABLISHMENT AND MAINTENANCE
OF A
UNITED STATES WATERWAY SYSTEM

We urge your serious consideration of the potential losses as opposed to benefits associated with the proposal to recover all capital, as well as operating and maintenance costs, of the waterway system of the United States.

While we generally applaud attempts to eliminate strong federal involvement in the affairs of our country, we recognize that some issues transcend political boundaries and can only be effectively dealt with at the national level.

With water transportation playing such a significant role in the economy of our nation, providing the most efficient means to export our nation's products, and to import both products and raw materials which are vital to our national economy and indeed to our security, clearly this is one of the issues which demands a strong federal role.

While we are extremely conscious of the importance the federal waterway plays in the economy of the Grays Harbor, Washington region, we are also aware of the importance of such waterways to the interior regions of the United States. Indeed, some of our leading export commodities such as grain, and potentially coal, all of which originate in the interior regions, cannot be sold to world markets without waterways.

On Grays Harbor the maritime industry has been determined to be directly responsible for 20% of the employment. These jobs have developed because of the willingness of the federal government to undertake responsibility for the waterway, while at the same time, local government and the private sector have undertaken the responsibility for piers and docks which provide the interface between the waterway and the land transportation systems.

Unilateral action by the Federal Government, violating the terms of this long-standing partnership in the maritime system, would have a severe impact on the economies of this system. Likely results include economic dislocations resulting in unemployment, bankruptcies and default on bonds.

Others, including the Port District of Grays Harbor and ports throughout the nation, are better able to describe the consequences of federal abandonment of the historic partnership. We urge you to listen carefully to what they are saying.

* * *

Approved by the Council of the City of Aberdeen this 12th day of August, 1981.

CITY CLERK

ATTEST:

Jack Durney

JACK DURNEY, MAYOR

Mr. HOGAN. Next will be Phil Curtis, local 24 of the Longshoremen's Union from Aberdeen, Wash.

STATEMENT OF PHIL CURTIS, LOCAL 24, INTERNATIONAL LONGSHOREMEN'S & WAREHOUSEMEN'S UNION

Mr. CURTIS. Mr. Chairman and members of the Water Resources Subcommittee, I thank you for the opportunity to speak to you today. I'm a longshoreman from local 24 in Aberdeen, we have jurisdiction of the docks on Grays Harbor and Willapa Harbors of coastal Washington.

In our opinion, the proposal to install a users fee to recover costs of dredging by the Army Corps of Engineers of deepwater ports would jeopardize existing ongoing shoreside capital improvements, including those at the Port of Grays Harbor, ITT Rayonier, Roderick Timber Co., and Weyerhaeuser.

Therefore, we recommend that the existing costs of construction, operating, and maintaining our navigation system be continued with respect to all channels with operating depths up to 45 feet.

Any change would probably force closure of river ports and smaller ports which require extensive dredging to maintain their channels, as they could no longer compete with natural deep ports and foreign competitors.

In the Grays Harbor area alone, the maritime industry is directly responsible for 20 percent of the employment. The loss of any port and subsequent domino effect on employment and revenues, the elimination of competition, and the effect on the economy and balance of trade would be devastating.

Thank you.

Senator ABDNOR. Thank you.

STATEMENT OF JACK P. HOGAN, EXECUTIVE ASSISTANT, SEATTLE STEVEDORE CO.

Mr. HOGAN. I'm Jack Hogan, Seattle Stevedore Co., Seattle, Wash.

We load and unload vessels in all deepwater ports except those on the Columbia River and are affiliated with stevedoring companies in Alaska.

We in the stevedoring industry are gravely concerned with the proposals we have seen which deal with recovering full costs of developing and maintaining the Nation's waterways.

It is our firm belief the administration's proposals are poorly timed and conceived without full knowledge of the consequences. At a time when this country is suffering one of its worst economic downturns in half a century, Congress is asked to disrupt the traditional partnership between the Federal Government and the seaboard communities.

This partnership has helped and perhaps been instrumental in developing the most efficient and aggressive world trade system in the world. It was the commitment by the Federal Government to keep the waterways open and modern that prompted the States and communities to invest millions of dollars in shoreside facilities. The men and women who operate these facilities and the communities served by them will have the rug jerked out from beneath them if full recovery legislation is enacted.

I believe that you have taken the right course in coming to the—this area to get additional information relative to the impact upon our Northwest. It is our belief that you should continue with the operation and maintenance of these channels. I would assume and I do believe that the industry would accept in new projects some type of a sharing process.

Thank you very much.

Senator ABDNOR. Thank you.

Congressman CLAUSEN. I don't have any questions. I want to compliment all of you for your contribution to the hearing record. Very succinct, laid it on the line exactly where you stand, and that's the kind of thing we need and expect from you. Thank you very much.

Senator ABDNOR. I just want to say that that's what we're here for. We find out that sometimes we don't really hear it like it is unless we talk to the people that have to live with the legislation that we pass. Maybe if we had the time to do this on all the legislation we pass, we'd do things differently.

Mr. HOGAN. Senator, I just want to remind you I started my life out in a town called Lemmon in Perkins County, S. Dak.

Senator ABDNOR. We'll wind up with the last panel, and we're anxiously waiting to hear from them, because it deals with water policy issues, and that's a large part of our business. Don Moos, Donel Lane, and George Proctor. I would ask those three to come forward. You have been very patient. As a matter of fact, Mr. Lane and Mr. Moos were scheduled earlier today, so they have had the whole day to make up for their review on policy.

Mr. FIELDER. It was an interesting day.

Senator ABDNOR. Thank you. It's been a real education for us as we go around hearing the different testimony.

Who wants to start? Go right ahead and proceed any way you care to.

STATEMENT OF GLEN H. FIEDLER, ASSISTANT DIRECTOR, WASHINGTON STATE DEPARTMENT OF ECOLOGY

Mr. FIEDLER. Mr. Chairman, committee members, my name is Glen Fiedler. I'm here on behalf of Don Moos, the director of the Washington State Department of Ecology. I'm the assistant director of water programs of our department. I hope you have not been so bored that you will hear nothing from me on waterway user charges. Instead I would hope to address three policy areas in water resources management.

Our department is the primary water resources management agency for the State of Washington. I think it's fair to say that in past years many have viewed the Pacific Northwest as a water-rich area. However, in the recent years, the demand for water increased to the point that competition has developed where all—many uses are competing for the limited supply.

In fact, many of our rivers are very highly developed, such as the Columbia, and several are fully appropriated, such as our Yakima River. I was interested by a comment coming from Mr. Clausen this morning that the next crises may be in the area of water resource impacts. I feel that's a very good statement, and in our State at least with the hydro coming into being in that impact is going to really put it into a big problem.

I'll touch on three issues. The first is the issue on cost sharing, and I speak in this concept more in the reclamation and development.

Our State has worked closely with the local sponsors since the 1900's in some form of cost sharing for water resources development. In 1919 there was a State reclamation account established. Up through the years we have loaned or purchased the bonds in various districts to allow them to proceed with their work. Of the 96 irrigation districts in our State, 23 presently benefit from this account.

I think, more importantly, in 1972 the voters of our State approved a referendum which provided $25 million for agricultural water supply development. Fifteen million dollars of that amount went into the Second Bacon Siphon and Tunnel, a necessary component of the Columbia Basin Federal reclamation project, which will encompass more than a million acres of land.

The remaining moneys of the bond were available under 15-percent grants and 35-percent loans, primarily to provide State and local support for the projects where there would be some Federal involvement.

We went through a drought in 1977. Our legislature appropriated $18 million in a bond issue that year. Those moneys have also gone into helping irrigation districts, and we are now up to November 1980.

In that month the people of the State approved referendum 38, which is a $50 million bond issue for water supply development. Basically, these funds, like the others, are intended to provide some State and local cost-share capability for our much needed agricultural projects where additional Federal financing will be required.

Based upon our experience and because of the continuing need for project development, our State is concerned with Federal cost-sharing policies. We recommend any cost-sharing arrangements provide the following:

First. We would hope to see uniformity among structural and nonstructural projects.

Second. Full front-end Federal funding for those projects deemed necessary to meet significant national needs where the non-Federal share cannot be provided initially. We would agree that there should be subsequent cost recovery over time allowed to let the projects go.

Third. We would like to see a flexible approach to cost sharing. We favor a sliding cost-sharing scale, which would require a smaller percentage non-Federal share on large projects. And if this is not done, at least in our State, we may be unable to participate in the large projects due to the costs involved. For example, on small projects the State currently provides 15-percent grant and 35-percent loan. We have a program called the Yakima enhancement project, with a price tag of $400 million, we are looking at. With the referendum we could provide about 8 percent in a grant to get that project going.

Fourth, we would hope that the percentage of non-Federal funding should vary with the type of project. For example, high national or Federal interest projects should be fully federally funded.

Last, fifth, we would hope that any legislation dealing with cost sharing should clearly specify that non-Federal funding includes States and/or local funding and is not limited to States.

There have been a number of proposals we have heard relating to block grant funding of water resource projects. We feel that this is an interesting concept that might shorten project development time and should be further explored. Although not a direct comparison, you could look at the construction grant program as now provided under the Federal Water Pollution Control Act. That program is one we administer, and we have had some good experience with it, but we feel there are a few pitfalls that we would ask you to consider if you will look at that approach.

First would be the tendency to impose uniform priorities and conditions. EPA has gone that route and has caused us a number of problems. We feel that because the needs of the State vary tremendously, Congress should insure that no unnecessary or inappropriate restrictions are placed on use of funds in the name of an assumed uniform nationwide need.

Second, we hope that an adequate time would be allowed for States to obligate authorized funds.

Third, we would hope that the process would allow a commitment to the total projects. That program is now administered as three steps, planning, design, and construction. We find that once we go through three steps of bureaucracy, many of the projects never get through the system to be built.

The second area I wish to touch on is the Federal/State water resources coordination and planning. We are very concerned about the void created by the termination of the U.S. Water Resources Council and the Pacific Northwest River Basins Commission. We are very concerned about the future status of Water Resources Council rules and regulations, including the principles and standards. The State of Washington has been an active participant in Federal/State planning and coordination efforts under the auspices of these two organizations.

The water resources of our State are heavily developed, and Federal planning and project assistance have been instrumental in establishing significant State water resource management and utilization programs. State participation in the planning grant program has permitted us to vigorously represent our interests before Federal agencies and respond to Federal programs and projects.

For these reasons, we strongly support the continuation of a workable Federal/State water management and planning program to enable the continuation of our strong resource management and development programs. We feel that States should not be required to pay the full cost of review of proposed Federal actions over which those States exercise minimal control. Further, we feel that State water resources planning grants should be authorized for at least 5 years to insure continuity of programs and staff.

Senator **Abdnor**. I'm going to have to ask you to summarize.

Mr. **Fiedler**. I appreciate that. We would hope that there would be any independent national water policy coordination established with heavy State and Federal participation. We would not support an Office of Water Policy in any single Federal agency if its purpose is to establish national water policy as opposed to its policy for that particular Federal work.

In my statement, I give you an example of what I call a catch-22 where we went through a situation with the Corps of Engineers and Fish and Wildlife over minimum flows.

That situation is behind us, but it is, I think, an excellent example of the need for Federal/State coordination.

The last area I'd like to address is that of hydropower licensing by the Federal Energy Regulatory Commission. Hydropower, at least in our State, seems to be a rediscovered resource. Everybody is walking through our door and filing applications. At this time we are tracking over 200 separate hydroelectric proposals, most of these going for the licensing process. In this we have taken a firm position that the State's water rights must be maintained for the use of the waters. Many applicants are going into it for predominance believing that the State rights are not necessary.

Attached to my statement is a memorandum from our senior legal adviser which sets out some of the legal problems we are faced with. I'll not get into it.

We would hope, though, that we could develop a better working relationship with FERC and other Federal agencies as this hydroelectric impact hits. We find that the lack of consultation with the department of ecology, as the State's water management agency, is also a serious concern. FERC is required by the U.S. Fish and Wildlife Coordination Act to formally consult with the State fish and wildlife agencies, but there is no requirement that the Federal agencies consult with the State water resources management agencies.

We would ask that you give that some consideration. I believe that is the main thrust of my statement, and I'll conclude there. Thank you.

Senator ABDNOR. Thank you, Mr. Fiedler.

STATEMENT OF DONEL J. LANE, CHAIRMAN, OREGON WATER POLICY REVIEW BOARD

Mr. LANE. Mr. Chairman, I'm Donel Lane appearing here today as chairman of the Oregon Water Policy Review Board. I'll try not to step in the same furrows as Glen.

I would like to point out to you that the Columbia is a very complex river system involving two nations, several States or portions thereof, public and private interests, all of the Federal water agencies plus treaty rights. We have had, are having, and will undoubtedly have conflicts over the uses of the water in the Columbia River, this in spite of the fact that we have had above average flows or average flows practically every year since World War II.

We have not had to face up to the existing demands on the water-short years of the 1920's and 1930's, which undoubtedly will reoccur. One of the problems of the Columbia is not the total flow but rather the fact that it is uncontrolled in the main. We have enough storage to control about 25 percent of the average annual flow of the Columbia River, but I would remind you that about half of that is to Canada, and the Canadian Tready will be up for renegotiation about the year 2022.

Any of us in the water business know that even under the most favorable conditions, from the time of an idea to the fruition of a project, it takes two or three decades. In a matter of some 40 years, we could be short some of the Canadian storage and the uses therefor.

I would like to point out that as far as do it yourself is concerned, Glen mentioned Washington. We in Oregon have general obligation bonds the voters have approved that provide for authorizing up to 1½ percent of the true cash value of the State or about $1.1 billion for irrigation and drainage. So we are attempting to do our part insofar as we can.

One of the needs I mentioned is storage. Most of the major storage sites on the river and major tributaries have been usurped by various environmental concerns such as Wilderness Acts, recreation areas, and that type of thing. We do have a potential of off-channel storage, and the dry washes, arroyos, and so on have several million acre feet that could be developed for its additional water supply, thus minimizing or hopefully eliminating the various conflicts over the uses of the waters in the Columbia Basin.

Now, I'd like to touch on a few points and specifically on the bill you have under consideration in the matter of water policy. No. 1, we think, because of the complexness of the situation here in the region, the myriad of interests, that there is a need for some type of legal entity to replace, supercede, or carry on the functions by the River Basin Commission. We have had interagency committees in the past, and they do not function effectively, first, because, primarily Federal, do not bring in the State viewpoint, and second, they do not have the blessing of Congress. We think there's a need for some kind of a regional planning committee.

Two, we think there's a need for a provision for a continuing coordinating entity at the Federal level, the water resources-type thing. One very important point, I believe, is that it be headed by an independent chairman appointed by the President, confirmed by the Senate and not responsible to any of the Federal water agencies.

Three, I think there's a recognition of the need for continued State/Federal cooperation in water resource development, including the need for continued Federal funding for State planning and necessary acquisition of basis data.

Four, there's a continuing need for provision for cost sharing or local support that should be recognized. Many of the States do have and are using bonding capacity similar to that mentioned for Washington and Oregon.

I'd like to also point out in your question of operation and maintenance in many of the water supply operations, such as irrigation and power and so on, many are repaid. Operation and maintenance are repaid as a part of the non-Federal responsibility.

Five, I think we have to recognize in this part of the country that we have a very valuable national or potential international resource in our fishing rights. Those are not our fish. We are merely the trustees or the foster parents of those fish. They are the Nation's fish and we have them here, but we think that the maintenance and enhancement of those fish runs is and should be a Federal responsibility.

Also, No. 6, I'd like to have Congress recognize the State privacy in allocation of water resources. Failure to recognize State roles could disrupt some 75 to 100 years of water administration in the West. Also, the cloud of Federal reserved rights is still an undecided question worthy of consideration by the Congress.

The other point is I believe that it is time that there is recognition by Congress that 160 acres is no longer an economic farming unit. With the increased emphasis on mechanization and in view of the soils and climatic conditions found in many areas, smaller farms are just not viable entities in many areas of the West today.

Thank you very much, Mr. Chairman.

STATEMENT OF GEORGE PROCTOR, VICE CHAIRMAN, PACIFIC NORTHWEST RIVER BASINS COMMISSION

Mr. PROCTOR. My name is George Proctor from Klamath Falls, Oreg., and as vice chairman of the Pacific Northwest River Basins Commission and now acting chairman, I would like to follow up on Mr. Lane's comments.

We need a forum for Federal and State relationship as we move, as he indicated, from a period of supposedly the area of plenty to the allocation of scarcity. This last year it's been continuously interesting to me to see that need to be developed and continued and following pretty much along the President's directive of cutting Federal expenditures and returning this responsibility to the States.

The State caucus and the commission redirected its programs for fiscal year 1980 to be without Federal funding, and we addressed the needs of the States in this regard, and assuming by that that by fiscal year 1982 the water policy problems would be sorted out. Then the parties could go on the particular direction as it would be charted.

The subsequent action of the administration which is now pending to terminate the river basin commission as of September 30 of this year, I'd like to call your attention to particularly exhibit B of the consequences that we see occurring.

First of all, in this unilateral action by the water resources council, instead of returning the responsibility back to the States, it leaves, as the only legal entity to address comprehensive planning, the Corps of Engineers who in the past in this area has—planning has been generally on a site-specific basis.

And, second, to me particularly, being one that contributes his time to this position, to note that the closing costs will be equal or exceed the operating costs for fiscal year 1982—for example, setting aside a reserve for unemployment when we could be employing staff to accomplish a worthwhile goal for 1982 does not seem logical.

For example, on a week's notice, closedown costs would be a year's rental for our office space. It seems to make more sense to utilize the facilities during this period of time. It isn't without—certainly from my standpoint and the need that remains and the fact that Federal funding would not be involved, the legal entity certainly needed to be continued for another year til this matter is resolved and particularly my comments in regards to S. 1095, suggested changes in Senator Abdnor's bill, addresses this concern.

And I hope we don't find ourselves in a position where we find ourselves winding down and have to wind up again.

One other comment, since Congressman Clausen is here and I've been reading the attributed comments to him regarding the water policies that really need to develop from the ground up and assuming that we are tracking on the same vein. Really, I think as you address water policy, that you really need to address it from that viewpoint because on the day-to-day operation both on the Columbia, for example, and the area of Tulley Lock and the Klamath project in Oregon you see the many uses that are utilized on a day-to-day basis and how well they are able to relate to each other.

And, unfortunately, as you move up the ladder, it becomes harder to relate. We really need to work from that strain, and I just want to make that comment.

Thank you very much.

Congressman CLAUSEN. It could be said we have saved the best for last maybe. All of the points that you have made, I think, are not completely relevant to this hearing but I think will make a very valuable contribution to the Senate record.

It would be my intent to take this testimony back and share it with our own committee over there in Public Works and Transportation as well as the Interior Committee. It so happens I work two hats. I am on the Water Resources Committee dealing with the reclamation law, and I happen to be the former ranking member of the Public Works and Transportation Committee.

So many of the points that you have made, Jim, tend to coincide with discussions that you and I have had and that relates to wherever you go with the development of some form of water resources policy. And that brings me to a question of Mr. Lane.

Mr. LANE. Yes.

Congressman CLAUSEN. Are you the chairman of the water policy review board?

Mr. LANE. For the State of Oregon, sir.

Congressman CLAUSEN. State of Oregon?

Mr. LANE. Yes.

Congressman CLAUSEN. Now, do you have a water policy for the State of Oregon?

Mr. LANE. We do, yes, except that the policy is not applicable to the entire State. Our State has quite different interests. We have a coastal area, very heavy precipitation and almost, down in the southern part, a tropical or temperate climate, marine climate. We've got deserts in eastern Oregon, so our policies must vary from one portion of the State to another.

Congressman CLAUSEN. Being sort of for States' rights myself, this is the thing we've been really wrestling with, because as I said earlier today, I think there's a common acceptance of the idea that the States' water rights are going to be protected and preserved and fought for like nothing that I know of in this country.

Isn't that a fair assessment? But within that framework our difficulty is how do you keep water policy intact? If you have a multi-State that requires a larger river basin and a multi-State compact, that, of course, becomes necessary. We have been trying for a number of years, and we haven't succeeded under the current system.

We established the water resources planning council. That was supposed to be a coordinating entity. Then what happened? The last administration, very frankly, was attempting to establish a totally independent review process, and as a consequence, we have had no project reports that ever came forward for the consideration of the Congress.

There's strong feeling in Congress that we should just wipe out the water resources council, because it was becoming an independent entity to itself and literally all it attempted was an authorization to do whatever they thought was right, and that's where the problem started.

Mr. LANE. May I comment on that?

Congressman CLAUSEN. Yes.

Mr. LANE. I've been around this business quite a while, and the one conclusion that I have drawn is in coordination at the Federal agency level, "You stay out of my way, and I'll stay out of yours." And that's one reason, I think, there's a need, if you're going to have something like the Water Resources Council, for a strong, independent chairman responsible to the President. Because the Water Resources Council, as you know, was locked in with the civil servants. The GS-16's and 17's were the Water Resources Council.

Congressman CLAUSEN. That's incorporated into our bill.

Mr. LANE. It's an excellent idea to have an independent chairman.

Congressman CLAUSEN. At some point it would be helpful, and we clearly don't have the time here, but I use this as a vehicle to trigger you to respond and provide some input, because we are really wrestling with this and it goes to the whole issue and principle of standards, evaluating projects and cost sharing, all these things.

This has hung up in the Congress and administration ever since Jim and I were on the Committee on Public Works. Remember when we passed the 208 study requirement? And this is in response to the OMB at that time to try to come up with something. We call for studies, and then with this previous administration, we simply could not obtain the response from them. I don't know why, but they just would never release that information to us.

And this came, and we were attempting, with the chairmen, the ranking members, both the full committee and the subcommittees—we all sat down and requested that they present to us the results of the session that we had legislated, and we couldn't get that information out of the administration.

So, it's been a continuing hassle, and I know that the current Secretary has his own views on how they should arrive at a water policy, and so—and we were trying to structure something along the lines that, in effect, would offer the kind of incentives and motivations for the States to develop that type of policy.

And as an example, in the process we on the House side incorporated a $100 million into the funding level. In our bill we had a State planning process, because we felt it was necessary to carry this out. This related to the construction grant program and the State certification effort in your testimony.

So, all the way through the process, we have been really working very hard to try to get some form of consensus, and I'll be damned if I don't think it's possible. Nothing is possible. So, the Secretary has said that what we really want is a mosaic of 50 State water policies that can be developed into and made a part of a national water policy that identifies the regions and that sort of thing.

But then my response there has been, "Do we, in fact, have 50 State water policies, and how close to realizing those water policies is each of the States?"

Can you respond to that? Do you think it's possible to develop water policies actively within a reasonable time frame in each of these States?

Mr. LANE. I think we have a lot of similarities, particularly the Western States. First, we have a doctrine of appropriation. The words may vary from State to State, but the basic principles are the same, basic use without waste versus time, that sort of thing.

I think practically every one of the Western States is getting a great deal of attention with so-called environmental issues with respect to water, minimum flows, these sort of things. There's a commonality, at least in the West, on many of these items.

Congressman CLAUSEN. So, then, you're saying if we were to place the emphasis on regional considerations, that the States within that framework would be able to develop a water policy avenue that it needs?

Mr. LANE. Start with the similarities; not with the differences.

Congressman CLAUSEN. Yes, yes. Well, there are many things that I could be addressing to you, but I want to digest all that you have said here and compare that with what we are doing, because it seems to me, Jim, that what we have been working toward is pretty much what the testimony has provided; wouldn't you agree?

Senator ABDNOR. I'm very pleased to see that.

Congressman CLAUSEN. It's kind of interesting, Senator Gorton, Jim Abdnor, and what we call the Big Six over on the Senate side—I came over to see if we couldn't come up with some agreement on this reconciliation bill. We finally came to the realization it was biting off too much of a chunk, but at least we turned some discussion over onto the Senate floor.

Senator ABDNOR. Thank you. Apparently, you like the idea of an independent chairman, and I believe that you think State planning funds should continue in title III. We have had a little trouble with that, and we are a long way from home on it, but the House and Senate has been together enough times and we are closer together on what we want, and we have convinced enough Members of Congress so that we may have a new policy.

Congressman CLAUSEN. I tell you one thing, Senator Abdnor's holding real tough.

Senator ABDNOR. They're tougher than me.

Senator GORTON. As you can tell, your testimony pleased Senator Abdnor very, very considerably. It did me, too. I'm glad we ended with what amounts to a philosophical long-range discussion of where we are going, and I appreciate the contribution of each of you here. You know perfectly well you'll give your material to the assistant chairman, and it will catch my attention.

Thank you very much.

Senator Abdnor. Thank you. Well, that's the end of our testimony. I don't think I'm shutting anybody off. I just want to say that this has been, as far as we're concerned, an excellent hearing. I'm happy to have had Senator Gorton with us, as he does so much on our committee in Washington, and then having Don Clausen here really puts the icing on the cake.

Congressman Clausen. It sure did.

Senator Abdnor. It's great, because I think it's been very worthwhile for him.

Congressman Clausen. It really has.

[Whereupon, the subcommittee adjourned to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

STATEMENT OF HON SID MORRISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Statement Submitted to Public Hearing of Water Resources
Subcommittee of the Senate Committee on Environment and
Public Works

Vancouver, Washington
August 19, 1981

Please accept my regrets for being unable to modify my schedule in order to attend today's subcommittee hearing. I thank you for holding this meeting in the Lower Columbia River area so that local entities and individuals can present their positions on proposed legislation which has such a profound effect on our Northwest economy.

While all of the issues under discussion today are of great interest to me, I will concentrate my brief remarks in opposition to the inland waterway user fees as proposed by the Administration. This district which I represent is heavily dependent upon agricultural production, processing, and transportation and is therefore sensitive to any shifts in policy that effect the operation, maintenance, and development of ports, locks, and waterways. While I recognize the logic in the user fees proposal, I am in opposition because it puts river systems like the Columbia/Snake at a distinct disadvantage. Lower Columbia River could not compete with the natural deep water ports that have no waterway maintenance or lockage expenditures. The continued development of the Columbia as a transportation system would be questionable.

As a Yakima Valley farmer, I can tell you of the transportation struggle Northwest agribusiness has held through the years. Our marketplace was the heavily populated eastern seaboard of the United States, and we could hardly get there from here. Shipping costs for all commodities had to be overcome with aggressive marketing. Now that the same "go get 'em" attitude has opened up export markets in many parts of the world with the greatest opportunities being in the Pacific rim countries. AS an example, over 80 percent of the wheat grown in the Northwest is now exported, and Columbia/Snake River transportation is an essential link in that marketing chain. If user fees were passeddown the river to the farmer, we take one more chunk out of the

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person most able to make America succeed in the world marketplace. I don't need to tell you that government should be encouraging agriculture and forestry to establish a better balance of trade with the rest of the world. User fees are counterproductive to this effect.

The potential for increased farm production in the state served by the Columbia River transportation is great. The second half of the Columbia Basin Irrigation project is nearly ready to proceed(another 500,000 acres). The Horse Heaven Hills right along the river have the potential of several hundred thousand more irrigation acres. The same opportunities exist in other northwestern areas, delayed in part, by a lack of marketing opportunities. Washington State apple growers have trees in the ground that could produce one box of apples for every person in the United States per year, and I remember when a bumper crop was 35 million boxes. Export is the only answer, and containerized, controlled atmosphere refridgerated shipping units could be barged down the Columbia. The lumber industry is struggling to make more sales of processed wood products to Japan and other Pacific nations. All these opportunities represent America's best opportunity to catch up with a balance of trade that has been undermining our economy. User fees as proposed are counterproductive to this effort.

In closing, I would like to mention that I have read Senator Hatfield's comments in the Congressional Record concerning his bills introduced to replace the user fees proposal by the administration. His ideas are a significant improvement, represent an "equal distribution of unhappiness," and would provide a source of funding for improvements that must be made, such as the Bonneville Locks.

My own personal preference would be to continue the investment by all the people of the United States, through general tax revenues, in developing and maintaining our water transportation system, that, in turn, benefits everyone, everywhere, in this country.

TESTIMONY

GOVERNOR JOHN SPELLMAN

Mr. Chairman and Members of the Committee.

I appreciate the opportunity to comment on the administration's cost recovery proposal for deep draft and inland waterways.

As Governor of the State of Washington, I must express my deep concerns for this plan now under consideration by the Committee.

It is my understanding that a full cost analysis of user fees, benefits, and liabilities of waterways is presently underway. The completion of DOT section 205 study would give a much better understanding by your committee of the relative transportation costs of using the nation's waterways. I, therefore, first urge you to delay any action on cost recoveryfees until this study is completed. Second, if you still feel that fees on waterborne freight is necessary, then the following items should be considered:

A. Continue the present 100 percent federal funding of maintenance and operation and development of waterways 45 feet and under.

B. For those facilities and programs for depths greater than 45 feet, the construction, operation, and maintenance should be financed with some degree of local participation, say, 40-60 or 50-50.

C. If, however, local participation is to be required, then some method should be found to let ports acquire that money without loss of the competitive ability or driving cargo to ports outside the United States.

D. If, in the final analysis a cost recovery fee is determined to be necessary to maintain and improve those waterways under 45 feet in depth, then cost recovery programs should be implemented on a uniform basis.

This is consistant with the U.S. Constitution, Article I, Section 9, which states: "No preference shall be given by any regulation of Commerce or Revenue to the ports of one state over those of another."

It would seem to me the federal government, if it enacts the Administration's proposal before you, is embarking upon a course bent on destroying the very system it wants to enhance.

Doesn't the federal government want to encourage world trade and correct our balance of trade deficit? Isn't the federal government embarking upon an intensified effort to strengthen our military capabilities?

If cost recovery fees are enacted the effect will be to divert cargo, both inbound and outbound, to ports in Canada or Mexico. Certainly not a situation which encourages foreign trade. Secondly, if the Administration's goal is to strengthen our military posture then it surely has contemplated the effect of closing certain waterways will have on the ability of moving military goods through the existing port system .

I believe it behooves Congress to look at the ramifications of imposing cost recovery fees before it approves this major shift in federal participation. Study the affect it will have on the ability to move cargo quickly and effectively through the port communities. Determine what irreparable damage it will cause to traditional foreign trade patterns. And assure yourselves what impact it will truely have on the federal government budget when you balance the cost of the projects against the loss or diversion of trade.

Lastly, I urge you to think twice about unilaterally severing the partnership between the local and state investment in shoreside facilities and the federal participation in the waterways. As an elected official I for one, would certainly not want to put into motion an action resulting in turmoil and economic ruin for communities dependent upon the continuance of world trade.

Thank you, Mr. Chairman for this opportunity to express these concerns.

Statement before the subcommittee on Water Resources, Senate Committee on Environment and Public Works by:

Tom Winn
Assistant to the Director
Oregon Department of Agriculture

August 19, 1981
Clark County PUD Electric Center
Vancouver, Washington

Thank you Mr. Chairman and panel members. Legislation designed to implement inland waterway user fees on the Columbia and Snake River system is causing concern for Oregon farmers dependent on this system to deliver their farm commodities to market.

In 1980 agriculture was the number one industry in Oregon. Oregon farmers continue to become more efficient, produce more products on the same amount of land and continue to vie more and more for foreign markets to sell their products. Commodity trade teams, and foreign market development specialists are all working hard to increase Oregon's share of agricultural sales to foreign markets. Frozen and fresh agricultural produces, grains, hay cubes and livestock products have all been steadily increasing their volume in overseas markets.

Projected figures for fiscal 1981 show U.S. agricultural exports to be 48.5 billion dollars. Subtracting U.S. agricultural imports of 18.5 billion dollars for the same period gives a positive balance of trade of 30 billion dollars. According to the Oregon Custom District office, Oregon will contribute 1 billion dollars to the positive trade balance in 1981.

We do not oppose the adminstration's concept of recovering the cost of operation and maintenance of the Columbia and Snake River navigation system. We do, however, disagree with the method the administation has chosen to recover those costs as they place a heavy burden on certain segments of Oregon's agricultural industry, especially wheat.

An increasing share of Oregon's wheat shipments are moving down the Columbia system by barge. Currently about 50% of the grain moving down the Columbia system is by barge and the rest by rail and truck. Barge traffic for grain is expected to increase as it is the most efficient mode of transport (three times more efficient than rail). Also rail traffic is at its peak in the Ports of Portland and Vancouver and it is doubtful that the rail system could expand its capacity to any more than a nominal degree.

Shipments of peas, lentils and hay cubes will also be affected as their economic edge is dependent on the Columbia-Snake Navigation System.

Imposition of waterway user fees on these commodities could well place Oregon and the Northwest in a very uncompetitive situation with respect to other nations competing for agricultural foreign trade channels. Additional fees could close the door to many foreign markets as costs to those customes rise and they search elsewhere for cheaper commodities.

Farmers are constantly in a position of producing and marketing commodities in the world market of which they have little, if any, control and face the problem of ever increasing fuel, fertilizer, and machinery costs as well as high interest rates. Waterway user fees have a two pronged effect; lower rate of return for their product and less attractiveness for their commodity in the world market.

Oregon and U.S. agriculture generally is the most productive and efficient agricultural system in the world. Agriculture is responsible for lessening our out of balance of payments due mostly to the high costs of imported oil.

Various figures as to how much the administration's bills will cost the farmer have been presented. Until such time that the Department of Transportation's 205 study of the Inland Waterway Revenue act of 1978 is completed, it will be difficult to assess exactly what this act will cost the Oregon farmer. Estimates by Gratron, the transportation study wing of the Oregon, Washington and Idaho wheat industry are frightening, however. Five to six cents a bushel extra for transportation costs on the Columbia-Snake system have been projected, money that will come directly out of Oregon wheat farmer's pockets as they are unable to pass this additional cost on to anyone else.

Oregon Senator Mark Hatfield has introduced legislation that would impose surcharges on imports and exports that benefit from the waterway system. This bill would implement uniform surcharges, based mostly on tonnage, on imports as well as exports.

This bill, while posing potential problems with the General Agreement on Tariff and Trade, has merit and should be examined closely by this committee.

I believe Senator Hatfield's bill is a more equitable system of assessing user fees on those who benefit from inland waterway systems. It establishes a uniform system of charges and does not penalize one particular group, especially farmers, and still accomplishes the objectives the administration has set out to achieve.

Thank you.

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PACIFIC NORTHWEST GRAIN AND FEED ASSOCIATION, INC.
WATERWAY USER FEE HEARING
AUGUST 19, 1981 VANCOUVER, WASHINGTON

The Pacific Northwest Grain and Feed Association is a non-profit trade organization consisting of country elevator and feed operations in the four states of Montana, Idaho, Washington and Oregon. Some of these operations are privately held cooperatives. The cooperatives, of course, being established by farmers and governed by farmer controlled boards of directors. All of these entities, of course, are dependent upon the producers to furnish products, transportation modes to move those products, exporters to sell those products to customers and in turn buy those same products from the country elevators to fulfill those export sales. These activities in the Pacific Northwest are practically exclusively export sales using the Columbia River ports. Since they are within this category the grain industry is acutely interested in the proceeds of this hearing and the eventual outcome determined by this hearing. The Association appreciates your conducting this hearing in the effected regions of the Pacific Northwest and, likewise, appreciates the opportunity afforded it to submit these comments for the record.

You have received, or will during this hearing receive, comments dealing with the effects of waterway user fees on producers and other commercial interests. The Association's analysis and comments will center around twenty three specific grain firms located on the Columbia-Snake River system and the effect that switching from water transportation to other modes will have on them. These twenty three firms shown in Exhibit #1 comprise 36,317,400 bushels of capacity. However, according to figures developed by the Corps of Engineers (Exhibit #2) these same twenty three firms handled,between April of 1980 and February of 1981, 5,244,624 tons or approximately 174,783,319 bushels of Pacific Northwest white, spring, hard red winter wheats and barley. The cost of this waterborne transportation was approximately 13¢ average per bushel or $22,721,834. The effect of the proposed administration increase on this cost is difficult to ascertain, however, it has been estimated by others to reach as high as an additional 8¢ which formulates the generally accepted fact that water transportation on the Columbia-Snake River would cease to exist with the implementation of the same. In Exhibit #3, therefore, we have compared the current waterway fee to the current use of truck and train to transport the same amount of grain to ports serviced by the Columbia River. I cannot overemphasis the fact that these statistics are using current figures and do not take into consideration what would happen if we increased the waterway user fee. They do, however, show significant increases in cost of transportation should the river alternative be taken away. A scenario we perceive would happen if the administration's bill were adopted.

Truck fees on the average run 10½¢ per ton, per loaded mile or approximately $1.10 a bushel. This shows the same amount of grain transported by truck to Portland, Vancouver, Kalama or Longview would cost for a 200 mile loaded trip $192,261,650. It would take 158,893 truck loads to accomplish the same fee that the barges are accomplishing. Based on five miles to the gallon, which is an average consumption of fuel b y semi-trucks, each one way trip would take 40 gallons of diesel fuel at $1.20 per gallon or 6,355,720 gallons or approximately $7,626,864 worth of fuel.

Rail transportation is somewhat more palatable in that it would only cost $48,065,412 or a little better than twice what the barge rate would be.

Rail transportation would use 52,964 rail cars of the jumbo hopper variety or 2,037 twenty six unit trains. Assuming the same fuel consumption 2,037 trains would use 81,484 gallons for a one way trip at a cost of $97,780. Barges on the other hand would consume only $55,930 worth of fuel, some $30,000 less than the next best mode. You can very quickly see that truck shipment is completely out of the question. It is our contention that rail is also. Of the twenty three river firms in existence only three can load the railroads preferred twenty six unit train. Fourteen have no train service at all and several of these fourteen, because of the location, would not be able to bring rail service to their plant. It is questionable that at $60.00 per foot, if any of the fourteen would up grade to load twenty six cars. In fact it is our opinion that all but the three now able to load the unit trains would simply padlock their doors and close their business. This would leave three firms, loading twenty six cars, in a position to handle 174,783,319 bushels of wheat using 2,037 twenty six unit trains. The railroad, I feel, would even have to admit to the impossibility of unloading this many rail cars in an already rail congested area such as Portland. That is to say the receivers are not geared for exclusive rail receiving or truck.

Our testimony shows that if we indeed have to have waterway user fees than alternates other than the administration's proposal must be explored.

Demand for Pacific Northwest wheat in the year 2000 is predicted to be 402.4 million bushels for wheat; 91.7 million bushels for barley; 11.1 million bushels for oats; 9.6 million bushels for corn and 5 million bushels for corn silage. These predicted increases in demand for Pacific Northwest wheat are reflected by the 17 million dollar remodeling expansion job of North Pacific Grain Growers; the 15 million dollars by Columbia; 10 million dollars by Continental; 15 million dollars by United and 20 million dollars by Cook. A new facility, being planned by Coast Trading at Woodburn, Washington and most recently the signing of intent by Peavey Corporation with the Port of Kalama for a new grain handling facility at that port, also confirms these projections. These companies and their managers are banking on this increased demand and verify its existence. They are, likewise, banking on keeping the river system open.

We assume that conservation of fuel is in the best interest of this nation and it is difficult to understand why we would be willing to tax one fuel efficient mode of transportation and force shippers to use a less fuel efficient mode of transportation thereby creating more imports of fuel for this country at a cost to our consumers. At the same time we are doing this we are reducing our agricultural export potential by implementation of a tax on the users. A user, I point out, that is contributing extensively to the black column side of our balance of payment deficit. Likewise, user fees passed back to the farmer through lower prices could force increased pressure on the government to come forth with more and bigger subsidy payments to producers again dipping into the public treasury to offset a proposed benefit to the same public in the form of user fees. It's somewhat similar to saving a dime and spending a dollar.

It is not a question, I hope, within the transportation industry of who received what and who benefited most from current programs or past programs of government assistance. For one mode of transportation to petition Congress to make another mode less competitive is surely not in the best interest of this nation and we trust this is not happening either. The Association questions, however, the validity of the 205 study, before its publication, because of the background of one of its most influential members. It is difficult to believe the Department of Transportation would hire an individual to participate in this most important activity effecting so many people when he is president of an organization supported by the Railroad Lobby. This same individual, it is our understanding, in 1977 told the Senate Hearing that the American Association of Railroads granted his organization $35,000 to develop and advocate implementation of a nationwide waterway user charge. We don't understand how a conflict of interest would not be present between this individual and the true desires of the Department of Transportation study.

The current administration, it appears, is taking a two prong attack to get this nation back on its feet. These two prongs are the economical base of this nation and the defense of this nation. The Pacific Northwest Grain and Feed Association supports these endeavors by the administration. A waterway user fee, however, that has been proposed taxes our competitive edge out of the world markets and would cost us more in the long run that we in the grain business are willing to pay.

Careful and complete evaluation of all alternatives including those in the 205 study even with its potential prejudices should be investigated and evaluated prior to introduction of any legislation. These alternatives should include, as you fine gentlemen have seen fit to do, public hearings within the effected areas. Listen to the expertise represented, not necessarily by myself, but by my colleagues on this panel. If the grain industry is to change its activities and migrate from one location to another then so be it by natural attrition not by force from the federal government in the form of these waterway user fees.

We as an organization cannot support the administration's bill on waterway user fees. We are evaluating Mr. Hatfield's legislation and will do the same to others. We only suggest that Congress follow suit and not rush into legislation that they will regret after the fact. As you gentlemen so well know it is more difficult to rescind bad legislation than it is to develop good, sound legislation.

The Association wishes your fine committee the best of luck and stands ready and willing to assist and provide any and all information we can develop to your committee and to Congress as they strive for an equitable, fair method of transportation user fees.

EXHIBIT 1

COLUMBIA SNAKE RIVER
SUB TERMINALS

Location or Company	Capacity	Rail Service
Cargill - The Dalles	197,400	No rail
Interior Elevator	1,400,000	UP
Biggs	550,000	No rail
Roosevelt	770,000	BN
Hogue Warner	1,600,000	No rail
Umatilla	2,200,000	UP
Pt. Kelly	3,480,000	No rail
Wallulla	1,250,000	UP
Kennewick	5,600,000	UP/BN
Pasco	450,000	BN
Cargill - Burbank	2,667,000	Yes
Scheffler	506,000	No rail
Windust	300,000	No rail
Lyons Ferry	1,500,000	No rail
Pomeroy - Central Ferry	2,300,000	No rail
GTA	1,000,000	No rail
Columbia	2,130,000	No rail
LCTA	3,187,000	No rail
Coast T.C.	900,000	Yes
Wilma	1,400,000	No rail
Clarkston	580,000	No rail
Almota	2,000,000	No rail
Coast Trading - Burbank	350,000	Yes
	36,317,400	

EXHIBIT 2

DEPT. OF THE ARMY - CORPS OF ENGINEERS
REPORT OF COMMERCE FOR WILLAMETTE, COLUMBIA, AND SNAKE RIVERS
In Tons (2,000 lbs.)

Month and	Year	White Wheat	Spring Wheat	Red Winter Wheat	Barley	TOTALS
April	1980	338,912	21,166	52,744		412,822
May	1980	309,675	36,629	77,126	2,618	426,048
June	1980	309,439	59,876	61,702		431,017
July	1980	391,311	31,503	47,745	1,600	472,159
August	1980	310,868	83,026	57,561	47,829	499,284
September	1980	263,381	53,229	58,614	24,381	399,605
October	1980	395,813	30,562	77,487	30,548	534,410
November	1980	366,695	39,762	92,545	18,742	517,744
December	1980	349,689	35,672	86,223	40,017	511,601
January	1981	358,773	31,977	78,295	90,725	559,770
February	1981	332,529	18,692	61,609	66,334	480,164
TOTALS		3,727,085	442,094	751,651	322,794	5,244,624

EXHIBIT 3

TRANSPORTATION MODE COST COMPARISON

MODE	BUSHEL	COST	UNIT COST
Barge	174,783,319	22,721,831	13¢ / bushel
Truck	174,783,319	192,261,650	27½¢ / bushel
Rail	174,783,319	48,065,412	1.10 / bushel

FUEL	GALLONS	COST AT $1.20/GALLON
Barge	46,608	55,930
Truck	6,355,720	7,626,864
Rail	81,484	97,780

Statement
of
M. KEITH ELLIS, DIRECTOR
WASHINGTON STATE DEPARTMENT OF AGRICULTURE
Before the
SUBCOMMITTEE ON WATER RESOURCES
of the
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
Senator James Abdnor, Chairman
Senator Slade Gorton, Member
August 19, 1981
Vancouver, Washington

Mr. Chairman and members of the Committee:

I am Keith Ellis, Director, Washington State Department of Agriculture. I welcome the opportunity to testify before you today on the subject of waterway user fees.

The prospect of adding to the transportation costs of water-borne agricultural commodities through a user-fee structure is of serious concern to the farmers of Washington and the Pacific Northwest.

In particular, we view the Columbia/Snake River System as a transportation system which is competitive with alternative modes of transporting agricultural and other commodities and thus benefits the farmer by keeping his marketing costs down.

While I subscribe to the objective of renewed fiscal responsibility espoused by the Reagan administration, I do not believe that any one waterway user can be unfairly burdened by a regressive tax. Unfortunately, the farmer stands to lose the most in the case of any additional waterway user fees. The close parallel of agriculture to perfectively competitive market theory has a negative effect on farm income in cases such as this. The farmer cannot raise the price he receives for his commodity to offset increased production costs.

Farmers in Washington, particularly grain farmers, have long recognized the importance of the Columbia/Snake River Transportation System because it is literally the gateway to world food markets. Approximately 95% of the wheat grown in Washington finds its way to foreign markets. Additionally, there has been, in recent years, a tremendous influx of grain from the Midwest and Plains states moving through the Columbia/Snake River System, bound for foreign ports. I submit to you, gentlemen, that continued future growth of agriculture in Washington, the Pacific Northwest, and the Nation depends on the proactive development of international markets. The success of foreign market development will, in large part, depend on the ability of producer and shipper to continue to take advantage of the competitive edge that the Columbia/Snake River System offers.

It is important that you recognize that individual waterway users are not the only beneficiaries of a river transportation system, and that the public benefits by its efficient use in the form of reduced consumption of energy, a low cost alternative to rail and truck for grain and other export commodities, and ultimately helping keep domestic food prices down by providing a cost effective means of moving agricultural commodities to expanding international markets.

In our State and region, a major impact of pending waterway user fee legislation will be an increase in uncertainty for the wheat producer and shipper. Since no one knows precisely to what levels the user fees may increase over time, producers will be uncertain about investing in specialized farm equipment and marketing firms may be reluctant to develop additional port facilities. Grain constitutes more total tonnage on the Columbia/Snake River System than all other commodities moving up or down the river (6.2 million tons for the period May, 1980 - June, 1981). Tremendous quantities of fertilizer and petroleum products vital to agriculture move up river to distribution points. In 1980, 83.1 million gallons of fertilizer moved up river. Petroleum products moving up river alone totaled 437.1 million gallons in 1980. This is a further indication that the impact caused by a user charge would fall heavily upon grain producers and shippers, and support industries.

As I mentioned previously, farmers cannot pass on increased transportation costs to anyone (i.e., the consumer) because the market price is fixed by world wheat supplies and demand. Consequently, in the short run, the increase will unquestionably create an additional strain on the ability of the wheat farmers to produce profitably. Given the current and past administration's cheap food policies, the imposition of stiff waterway user fees will further cloud the farmers' profit picture.

Historically, waterway user fees have been considered against public policy and a retardant of economic growth and prosperity. From the viewpoint of the farmer in Washington it means the potential of additional costs and less income. From the viewpoint of the river ports, user fees have the definite possibility of raising truck-barge rates in a very competitive market situation. This, due to the historical response of railroads to barge rates, might even increase rates to grain shippers not even using the River. It is also somewhat ironic that for as many years as the Bonneville Lock has been in need of enlargement, it has taken the threat of a potentially regressive user fee to increase the palatability and political possibility of funding the construction of a new lock.

In spite of the potential impact of additional waterway user fees on farm income, we recognize the fact that if the Columbia/Snake River System is to continue to be a viable, efficient means of moving agricultural commodities, it will require maintenance and new construction.

I think you will find that while most farmers may not agree in principle with additional waterway user fees, they also do not expect a handout. Farmers in this region recognize the importance of the Columbia/Snake River System to the continued success of their operations and are willing to pay a fair and equitable share of the costs of developing and maintaining the system.

Fair and equitable means apportioning the costs of development, construction, operation and maintenance among not only the direct users, but also those who benefit either directly or indirectly from these activities at little or no cost, i.e., recreation, fish and wildlife, flood control, municipalities, power consortiums, national defense, and so on.

At this time, Mr. Chairman, it is my view that there is not sufficient economic data available on which to base responsible waterway user fee legislation, if indeed it is justified at all.

It is our understanding that the Departments of Commerce, Transportation, the General Accounting Office and other agencies are in the final stages of the Section 205 study authorized by Congress three years ago.

I urge the Subcommittee on Water Resources to defer consideration of any waterway user fee legislation until the results of the Section 205 study are available. This will allow time for those who will be affected by additional waterway user fees to evaluate and respond to the study. This is extremely important in light of the fact that up to now there has been no input of any sort from the grain industry in the Pacific Northwest, yet waterway user fees would impact the grain industry more than any other commodity that moves on the Columbia/Snake River System.

In closing, Mr. Chairman, I recommend that upon receipt of the Section 205 study, Congress allow a sufficient comment and review period by affected parties before you proceed with any legislative proposals.

# # # # #

August 19, 1981

BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Testimony of Cecil L. Brennan
on Behalf of the Producer Members of
Grain Transportation Consultants
of the Pacific Northwest and the
National Association of Wheat Growers
Regarding
WATERWAY USER CHARGES
S-809 · S-810

My name is Cecil L. Brennan and I submit this statement and exhibits on behalf of the wheat producer members of Grain Transportation Consultants of the Pacific Northwest (GRATRON) and the members of the National Association of Wheat Growers (NAWG).

I am the Executive Vice Predisent of GRATRON, with offices at 200 S. W. Market Street, Suite 770, Portland, Oregon 97201. I have been actively employed in traffic and transportation management for more than thirty years and have participated in numerous proceedings before regulatory agencies involving movement of grain and I am frequently required to determine competitive relationships between these modes which effects trading and shipments of grain, domestically as well as in foreign commerce.

GRATRON is a voluntary, non-profit corporation existing under the laws of the state of Oregon. Its membership consists of various organizations, firms, and individuals concerned with or engaged in production, milling, processing, marketing, and transportation of grain and grain products in interstate and foreign commerce from, to, and within the states of Oregon, Washington, and Northern Idaho hereinafter referred to as the Pacific Northwest (Northern Idaho includes Idaho County and north).

NAWG is a commodity organization representing commercial wheat producers in the states of Arizona, California, Colorado, Idaho, Kansas, Minnesota, Montana, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Washington and Wyoming with offices at 415 Second Street N.E., Suite 300, Washington, DC 20002.

POSITION OF INTEREST

The members of GRATRON and NAWG have a genuine interest in the legislation here being considered, as the producer members bear the transportation cost of marketing grain, meaning that any increased freight rate will fall directly on this relatively small group. Transportation is the single highest expense experienced in marketing grain. The Interstate Commerce Commission has long recognized, that under the present grain marketing practices, the price received by the farmer is normally the markeat price, less the cost of moving the grain to market.

The overall objectives of these producer organizations are to promote fair and equitable transportation rates and service on wheat from the point of production or processing to all points where such products are sold or consumed and to continue an ongoing program of expanding uses for wheat and wheat products and ~~in~~ moving ever large quantities of such grain to consumers in the United States and abroad and to take such action as may be deemed necessary or advisable in order to stabilize and protect the grain industry and the health and welfare of the public.

Although I appear here today regarding a waterway issue, I have no bias as to mode of transportation. Wheat shippers are major users of all types of transportation. In fact, one of my exhibits will indicate a slight preference for rail over other modes insofar as the movement of wheat to the Pacific Northwest is concerned.

My purpose in this testimony is not to oppose barge user charges as such, instead, wheat producers have a direct interest in encouraging the development of a national transportation system that will continue to meet the needs of the nation's grain producers. Wheat farmers have a large stake in the well being of the nation's overall transportation system as indicated by the fact that revenues from the transportation of grain in the Western District represents more than 10% of rail carriers total gross revenue and wheat is the single largest commodity contributor to Western District rail carriers freight revenues, with the possible recent exception of coal, and according to studies recently released by the Interstate Commerce Commission, wheat revenues represent a ratio somewhere in the vicinity of 173% of carriers' variable costs. The wheat farmer does bear the cost of transportation incurred in marketing grain and any increase in transportation cost will be passed directly back to the producer and we submit that the wheat farmers are already contributing much more than their fair share to the nation's transportation revenue needs and further unwarranted increases will only intensify the unfair burden wheat farmers are presently carrying, meaning that any inequitable freight rate increases resulting from legislation here being considered, will impact directly on relatively few citizens of our nation, while our waterway resources are directly beneficial to the nation's well being and not only to those engaged in the production of wheat or the actual users. To unnecessarily increase freight rate levels, as will happen under the administration's bill, will irreparable damage these producers and could well result in a curtailment of wheat production as well as jeopardize the position of the United States as a major wheat exporter to the world.

SUBSIDY ISSUE

It does appear that the wheat producer has become victim of the modal subsidy fight presently going on, whereby the nation's railroads are alleging unfair competition from modes supposedly subsidized by the Federal Treasury, while these modes are pointing a finger at the railroads alleging land grant values, pension subsidies, research and other federal programs being carried on for the benefit of the rail carriers. It is not my intention to get into the subsidy argument, as I am sure you will hear a great deal more about that issue directly from the various carrier representatives, however I do think that it is worth putting this argument into some type of perspective by simply mentioning that the North Pacific Division of the Corps of Engineers has spent a total of $435 million on navigation facilities on the Columbia-Snake River System through September of 1980, while the federal budget call for an expenditure of at least $300 million to subsidize rail retirement programs this year, with an additional $500 million in capital grants for CONRAIL and an additional $262 million in new funding to assure its existence for a minimum of the next two years. Since 70% of CONRAIL's traffic is joint with other carriers, most of the nation's rails will benefit from this federal transfusion. The Corps of Engineers spends something less than $400 million annually for maintenance and dredging, nation wide, not simply for navigation but for flood control, irrigation, and bank stabilization, hydro and recreational. I merely mention the subsidy issue because I do believe that the two factions warring with one another, are going to impact very heavily upon our nation's agricultural community, as the fallout of legislation will not necessarily be in our best interest. For example, Congressman Dingell of Michigan has, or is in the process of introducing legislation that will look into the splitting of railroad land grant resources and question the formation of railroad holding corporations. Regardless of the outcome, increased rail costs will result only to be paid by producers.

ANALYSIS OF PROPOSED LEGISLATION
THE ADMINISTRATION BILL

Having laid the foundation of our concern with events leading up to today's hearings, I would like to describe our concern with the legislation we are here considering as well as other legislation that has been introduced or may be introduced at a later time.

We are particularly concerned with the administration's approach. We have outlined our concern to the Pacific Northwest Congressional Delegation in letters dated June 10 and July 15, 1981, attached to this statement and referred to as Exhibits 1 & 2. In addition to the arguments contained therein, we are particularly concerned that the administration bill will segment the nation and will impact much more heavily on various regions. The Columbia-Snake River System, for example, would be severely crippled if cost recovery user charges are applied on such a segmented basis. This would happen for two reasons. One being that this system is a highly lock and dam intensive system. Putting it another way, there are eight locks and dams between Portland and Lewiston, Idaho for a distance of about 300 miles. These locks and dams were co-justified at the time they were built. The cost benefit ratio of either hydro generation or navigation could not stand alone but could be justified only by both activities and as a result, all dams were built as high head dams, meaning that the maximum drop of water was obtained in order to maximize electrical generation, and as a result, higher locks were required. On the other hand, the locks built on the Mississippi River and other rivers of the nation are low head dams, and for the most part, are not multi-purpose dams, except that they are used for navigation as well as for flood control. The second reason being that perhaps the most devastating portion of the administration's bill impacting the Columbia-Snake River System is the so called deep-draft portion as Portland, OR, Vancouver, Kalama and Longview, WA, all major grain shipping points, are located inland from the ocean and would impacted most heavily by application of the segmented deep draft user charge.

I am sure that you have seen or will see the Port of Portland impact statement indicating the potential user tax of as much as $63,000 on a 50,000 ton cargo; this would impose an additional $1.26 a ton on wheat or approximately 3½¢ a bushel. This would mean that producers in the Pacific Northwest and others using the river system would receive 3½¢ a bushel less for their grain, since as earlier stated, the farmer bears the cost of transportation in the marketing system as there is no other participant between the farmer and the end user who will, or can, absorb the cost.

Wheat is a world commodity and not one where the United States has an edge. We do compete world wide for wheat sales and while we are a major provider, we must bear in mind that we are still considered, for the most part, a residual supplier, meaning that as our marketing cost would increase we would become less and less competitive, therefore the increased costs are passed back to the producer in the form of a lower bid for his product.

Wheat producers feel so strongly toward the administration's bill that you will note in our Exhibit 2 we have referred to the bill as the "Columbia-Snake River Closure Bill".

To impose a waterway user charge on a segmented basis, as the administration proposes, would be tantamount to insisting that the natural resources found in any of the states of the United States should be shared equally among all of the states and all of the people and tha all of the natural resources found on or under tha land owned by the railroads should also be shared by the nation as a whole.

THE HATFIELD BILL

We have also reviewed Senator Hatfield's legislation, introduced as S. 1586, which is a bill to establish a somewhat different concept of obtaining funds for maintenance and development of deep-draft sea ports, inland river ports, and waterways necessary for domestic and foreign commerce. We could accept the concept of Senator Hatfield's bill, as it recognizes that the efficiencies and economies built into waterway transportation are not parachocial, but they are enjoyed by the nation as a whole in form of permitting our nation's produce to become competitive in world markets and permits full use of natural resources and the fuel efficiency of waterborne transportation.

PROPOSED BILLS

We understand the administration has also drawn up a revised user charge, but it has not yet been introduced. Interestingly, it omits all East and West coast shallow-draft ports and waterways, with the exception of the Atlantic Intracoastal, Willamette, and Columbia-Snake Rivers from the fuel tax and supplementary user charges, the idea being that there are many small ports used mainly for fishing and for recreational purposes on which the Corps of Engineers spends something in the neighborhood of $32 million annually. Apparently these ports and waterways would remain toll free. This is interesting since the North Pacific Division of the Corps has indicated that for the last five years, it has spent an average of $7.4 million on Oregon coastal O & M, $9.9 million on Washington coastal, and $2.0 million on Alaska, while at the same time having spent $6.7 million on the Columbia-Snake lock and dam System, with an additional

$8.9 million on the Lower Columbia-Willamette Rivers, indicating that more Corps' money has been spent on the coastal waterways than on the navigable waterways. It could be that Mr. Stockman is trying to divide the opposition.

A fourth suggestion to come to our attention would change the taxation applied on vessels now entering the United States from a foreign country. Historically, the United States has made available the ports of the United States to all of the people of the country, through government programs whether it was agricultural commodities from the hinterlands, or from the vicinity of the port ranges, or manufactured goods, with the idea that the availability and the benefits of the port system were not limited to citizens in the immediate vicinity of a given port. This fourth alternative would develop the necessary funds for waterway development projects through increased tonnage tax on all vessels entering U.S. ports and for that reason no port or port range would be discriminated against because of its location or its topography. Since the mechanics are already in place to collect the tax, it would require no additional personnel for administration, as similar vessels now pay a tonnage tax to enter U.S. ports but the charge is much lower than charges made at ports of other nations. This option would maintain the present shallow-draft vessel tax, as would the Hatfield Bill. We believe that legislation of this type or that contained in Senator Hatfield's bill could be properly implemented and acceptable, since either bill would reach the administration's objectives of developing sufficient revenues for improvement and maintenance of the waterway system and yet would not impact on any segment of the nation.

We would like to take this opportunity to give the Committee some idea of the importance of the Columbia-Snake River System, and the nation's inland waterways system, not only to the users, but to the entire economy of the United States.

FACILITIES ON THE COLUMBIA-SNAKE RIVER SYSTEM

In our Exhibit 3, attached hereto, we have listed the export elevator facilities located not only on the Columbia River but those in the Puget Sound as well. Our Exhibit 4 shows the upriver development or the shipping facilities that have been built on the Columbia-Snake River System from The Dalles, Oregon east to Clarkston, Idaho, while our Exhibit 5 will give you an idea of the amount of tax presently paid by producers because of the imposition of the fuel tax in 1980. You will note that this tax is presently at 4¢ a gallon and will increase to 10¢ a gallon by October 1, 1985, as shown on Exhibit 4.

Our Exhibit 6 will give you some idea of the variety of wheat and type of grain moving on the Columbia-Snake River System, while Exhibit 7 will demonstrate the exports of grain from the Pacific Northwest ports. Exhibit 8 indicates the method of transportation used to bring grain to the export facilities. Exhibit 9 is intended to show the volume of wheat moving by barge on all inland waterways compared to total exports.

Now that I have briefly described each exhibit, I would like to go back and refer to Exhibit 3, wherein we show the export facilities on the Columbia River, as well as on the Puget Sound. It should be noted that less than 30% of the handling capacity and about 25% of the storage capacity is located on the Sound, meaning that if the Columbia River export houses become noncompetitive, the amount of grain exported, as shown on Exhibit 7, would be greatly restricted and the 217 million bushels of barge grain arriving, as shown on Exhibit 8, would be diverted to rail, provided the rail carriers could handle the increased volume, which is most unlikely. It should also be noted that in the event the shallow-draft user charge would be increased to the point where barge shipments would be curtailed, there is very little opportunity for rail carriers to increase their carrying capacity to provide additional service to those elevators on the Columbia River System, as evidenced by a study recently done for the Congress. This study was sponsored by the U.S. Department of Transportation, the Federal Railroad Administration, the Association of American Railroads, the Railroad Labor Organizations, and was authorized by the Congress in accordance with DOT-FR-9045. The study had to do with the review of the Portland Terminal and was referred to as the Portland Terminal Project. While the study discussed at length the need for improvement in speed and reliability of rail service, improvement in capital and labor productivity, and greater cooperation between labor and management among the carriers, it came down to one simple paragraph that stated: "However, an area of major importance in Portland is the limitation for expansion and service improvements in the industrial development of the Portland Gateway in the 1980's".

In addition, if Columbia River wheat is forced to the Sound the midwest feed grains now moving by rail would be diverted to the Gulf and would be vulnerable to barge competition.

Now, this is not to say that the railroads are incapable of providing additional service, however it is obviously clear that there are very important limitations and constrictions on the present rail plant and when we consider that there is a growing interest in developing coal export facilities in the Pacific Northwest, we should be doing everything possible to encourage further waterway development rather than to discourage the development of this national natural resource. As a matter of fact, there will be a meeting held here tomorrow, at which time a Mr. William Morris, Assistant Secretary of Commerce for Trade Development and Chairman of the Interagency Coal Export Task Force, will be looking at export potential through the Pacific Northwest. It is ironic that the administration would be imposing restrictive measures on this all important transportation mode and effect our export competitive ability while another agency is attempting to develop increased exports.

The administration bill will also tend to impact adversly on railroads in the Pacific Northwest as the deep-draft charge could easily divert grain to Puget Sound ports and, as earlier stated, Puget Sound elevators do not have the capacity to maintain the present export volume and rails would likely lose the long-haul feed grain movement because of restricted elevator capacity. At the present time rail rates are identical to Columbia River ports as well as to Puget Sound ports from most of the major wheat producing areas, but it will be more costly for the railroads to reach the Puget Sound than to reach Portland or other Columbia River Ports, simply because of distance or of the mountainous terrain necessary to traverse going from the wheat fields to the Sound. To this extent, the user charge could impact so heavily upon the Columbia River export facilities, that it would be counter-productive and work, to the disadvantage, not only of the railcarriers but to the Puget Sound elevators as well, because the volume of export movements would decline, thereby making the Pacific Northwest a much less viable export port range. Fewer ships would be calling, either with imports or exports, thereby greatly reducing the commercial activitity of the region.

The Columbia River export facilities shown on Exhibit 3 represents an investment in excess of $150 million with continuing modernization program exceeding $10 million annually.

In Exhibit 4, we have indicated the fuel sur-charge applicable in connection with grain shipments originating at various points and from navigational pools. At the present time, this charge is 4¢ a gallon and represents a charge ranging from 4¢ to 10¢ per ton, but by 1985 the tax will increase to 10¢ per gallon. On exhibit 5, we have broken down the tonnage moving from each of the navigational pools and, even though the tax was not in effect in 1979 nor for all of 1980, we have projected the tax that would have been paid had the 4¢ per gallon tax been in effect during those years. We have also multiplied the 1980 tax by 2½ since the present 4¢ tax will increase to 10¢ by 1985, indicating that with present volumes we would be looking at a payment of $1,215,000, on the premise that the tonnage would not increase, however according to our Exhibit 8, the barge tonnage has nearly doubled in the last five years, meaning that if the barge volume continues to increase the next five years as it has the past five years, we could anticipate at least 10 million tons of grain moving on this river system, bringing in more than $2.5 million on the premise that the 10¢ per gallon tax would remain constant.

During the first 3 months te present user charge was in effect, grain producers paid more than $5 million, there were winter months with part of the system closed. By the time the present tax is fully implemented in 1985, it has been estimated grain producers will be paying more than $50 million annually to the waterway fund.

WATERWAYS DO NOT CONSTITUTE DESTRUCTIVE COMPETITION

Exhibit 8 is intended to show the Committee that the waterways transport approximately 44% of the total grain receipts at the export facilities located at the Columbia River export houses, while rail carriers maintain more than 50% of the volume. This table covers only wheat and barley and does not consider the domestic movement of wheat, barley and other feed grains, nor does it take into consideration the considerable rail corn and grain sorghums export movements through the Puget Sound ports.

We have also prepared Exhibit 9 to demonstrate that the waterways do not constitute destructive competition in any other area of the nation as this exhibit provides a record of total barge movements of wheat for a three year period compared to total exports and it clearly demonstrates that rail carriers are able to compete with water carriers for this attractive business.

ments, as recently as Crop Year 1977-78, were lower than Crop Year 1965-66, with the dramatic increase taking place in barge and even truck receipts. Rails are currently handling an increased volume of grain to the Columbia River Ports because, as earlier mentioned, the Puget Sound elevators are handling feed grains from the midwest, thereby forcing more wheat and barley through the Columbia River elevators. This fact is graphically shown beginning with crop years 1978-79 through 1980-81.

205 STUDY

The nation's wheat farmers are appreciative of the fact that the committee chaired by Senator Abdnor has refused to report out the administration's proposed waterway revenue bill until the effects of the so called 205 Study have been made public and the committee has had an opportunity to analyze the impact the present waterway user charge has had on waterway movements. While we do appreciate this action, we must also question the input into the 205 Study, since more wheat generally moves on the Columbia-Snake River System than on any other inland waterway system in our nation as shown in Exhibit 9, we have yet to find anyone in the Pacific Northwest, either a shipper or a user of the waterway, who has had an opportunity for any input into this study. Yet, the very future of this waterway system could well hinge on the outcome of that study. We would recommend to this committee that it look very closely at the source of input into that study. While we have no idea of the conclusions that might be reached, we would greatly appreciate having an opportunity to review the study before its conclusions are accepted.

In addition, these exhibits also indicate the extreme value of waterway movements to the entire grain industry, not only to wheat producers, as the waterways handled 906 million bushels of corn during the same period shown for 1978-79 and 395 million bushels of soybeans. In 1979-80 barges handled 970 million bushels of corn and 373 million bushels of soybeans and in 1980-81, one billion bushels of corn moved by barge and 476 bushels of soybeans. Barges handle about 30% of the total wheat exports volume, about 40% of the corn and soybeans. The committee should recall that during that three year period, our nation went through, perhaps, its most critical transportation shortage and rail carriers were not in a position to handle any additional tonnage during those years, meaning that if waterways were not utilized fully, our nations' exports would have suffered irreparably and our deficit balance of payments would have increased dramatically.

In Exhibit 6 we have provided a breakdown of the types of wheat moving on the Columbia-Snake River System and, obviously, white wheat, the locally produced wheat in Oregon, Washington, and Northern Idaho dominates, as it should because of its proximity to the river, while the spring and winter wheats produced in Montana and North Dakota move to a lesser degree. The barley is, for the most part, locally produced and would originate in much the same area as white wheat.

Exhibit 7 is intended to provide the Committee with a breakdown of the classes of wheat exported through the Pacific Northwest by years and by volume. It will be noted that white wheat also dominates the export volume to the same extent that it dominates the movement on the river system.

In Exhibit 8, we have provided a breakdown of the modal receipts of grain at Columbia River export houses. It should be noted that rail move-

INEQUITY IN PRESENT USER TAX

There is a considerable amount of inequity built into the present system which would be further aggravated by a.higher tax as contemplated. For example, a ton of wheat, valued at approximately $120 pays identical tax to a ton of gasoline with a value in excess of $300, or a ton of manufactured commodities moving in containers having a value of several thousands of dollars. In my opinion, this inequity would be further aggravated by the administration's proposal. The inequity exists not only on the Columbia-Snake River System, but applies nation wide.

CONCLUSION

From the arguments advanced hereinabove, we would trust that the Committee well recognizes the concern of the nation's wheat farmers over the imposition of an excessive, unmanageable, and segmented user charge that could well deny the grain producers the most fuel efficient, economical means of marketing their grain and to deny to our nation the maximum utilization of its natural resources and that these resources are used for the national well being, rather than merely for the benefit of the actual users by regions. We would also hope that the Committee has recognized that it is the producer who bears the cost of transportation. The barge carrier will not absorb the additional charge but will simply pass the charge on to the shipper, who in turn will pass it on to the producer in the form of lower returns for his produce. Under normal marketing circumstances, user charges could well find their way into commodity pricing decisions and could be passed on to the end user, however since we are dealing with a world commodity we do have the luxury of being able to pass on such charges but they must be borne by the producer. It would be extremely simple if the barge user could pass on the user charge to foreign buyers, however that likelihood is remote in view of the worldwide competition confronting the grain trade.

While export demand for U.S. produced grain remains reasonably strong, we need only look at rail carrier car loadings to recognize that the grain movement through the Pacific Northwest and over our nation has been dramatically reduced. All we need do is consider all of the idle rail cars and barge operators and the large number of grain cars and barges sitting idle while barge rates on the inland waterways, where such rates are negotiable, are at historic lows and consequent rail grain rate reductions are being made to compete with such lower barge rates.

Our nation's wheat producers are only one source of a competitive world supply. Wheat has but one world value at any one point in time which would reflect the normal small fluctuations and adjustments in prices from competing export nations. Under these circumstances, the U.S. exporters could not merely add a barge user charge nor an increased rail cost to their individual cost to remain competitive in world grain markets.

In the event that the Congress should pass the Administration's legislation, it should well bear in mind that it is taking money directly from grain producers over the nation in the form of lower returns which could well result in a recessionary if not depression conditions in the American agricultural community. In the final analysis, the administration's proposed waterway user charge is onerous, regressive, counter-productive, and will be self defeating and we would highly recommend the Committee hold this entire matter in abeyance until it has had an opportunity to review the concepts contained in Senator Hatfield's bill or in other legislation which would impose a charge upon foreign vessels calling at American ports similar to that charge presently applied in other countries of the world.

Thank you for providing the nation's wheat producers with this opportunity to express their considerable concern over this misdirected legislation.

Exhibit 1

June 10, 1981

The Honorable Mark O. Hatfield
United States Senate
463 Old Senate Office Building
Washington, DC 20510

Dear Senator Hatfield:

Re: Inland Waterway User Fee

GRAIRON is one of the "hired hands" of the wheat producers in Oregon, Washington and Idaho. We work very closely with the producers and producer organizations to develop and maintain an adequate, efficient transportation system for the marketing of wheat.

We have written you and other members of the Pacific Northwest congressional delegation in the past on behalf of these grain producers relative to the adverse impact inland waterways fees will have on the farmer.

The present waterway user tax grew out of HR 8309 considered in 1977 which we supported in preference to the Domenici User Tax Plan considered in S 1529 at that time. The present tax is contributing significantly to the maintenance of the navigable waterway system and to now go back to the Domenici concept as embodied in S 810 Inland Waterway User Fee Act of 1981 and HR 2962 would be regressive.

The proposed tax as contained in this legislation would impact most severely on commodities moving on the river system since it would set up a dominoe effect. Marginal commodities now moving would tend to gravitate to other modes of transportation or would simply stop moving, thereby imposing a still heavier burden upon the remaining commodities until such time as the waterways would be moving insignificant quantities, or possibly, none at all. In addition the impact of such a user charge will very effectively stop all river development such as shipping and receiving facilities and will cause a great shift to rail and other modes of transportation already overburdened in their efforts to move commodities through the heavily congested terminal areas.

Approximately 50% of the considerable grain exports moving through the Pacific Northwest reach the export facilities by barge and to shift this added burden to an already congested rail system would have a most serious effect on our ability to meet export opportunities. Consideration must also be given to the fact that the Pacific Northwest is on the threshold of becoming a major coal exporting coastal range but because of the existing rail congestion, various interests are looking at the idea of constructing a bulk handling facility at an upriver location to enable the PNW to be a viable coastal range for export of coal.

Exports of U.S. commodities are extremely important to our balance of payments and any constriction or limiting factor will be to the detriment not only of the producers and others directly involved with each commodity but will also impact seriously on the entire economy. Grain

• [illegible] W Market Street • Portland, Oregon [illegible] • Phone (503) [illegible]

[illegible] is an excellent example of this situation. U.S. producers are in competition with and for world markets and at the present time the United States has been reduced to the role of being a residual supplier, meaning that in many instances we are not the cheapest nor principle supplier in the world markets. From a regional standpoint, PNW produced grain is in direct competition with Canadian grain and since most Canadian shipments move by benefit of a government subsidized and extremely low rate level because of the "crows nest pass" agreement and any additional increased cost placed on marketing will make U.S. grain less competitive in world markets. The impact of the user charge being considered in this legislation will fall directly on the grain producer regardless of whether the user charge is in connection with inland waterways or the deep draft charge. It is also a safe bet to believe that any increase in waterway freight rate levels will be further impacted since rail carriers will immediately take advantage of the increased costs by raising their own rates accordingly, thereby further increasing the marketing costs of all U.S. exported grain.

The very concept of a user charge intended to recover total maintenance and construction costs is repulsive since it has a tremendous potential to lead to "pork barrel" politics. It will become extremely easy for Congress to approve and allocate monies to the Corps for development, construction, overmaintenance and other unnecessary costs when the depth of the economic well is limitless, since the additional funds could easily be raised through a user tax intended to recover all such costs. Farmers will be placed in the position of contributing to services for which they absolutely no need or desire.

The waterways industry and its shippers agreed to accept the provisions of HR 8309 more than three years ago even though that legislation did increase barge costs and will continue to do so for the next several years and if the Congress is ever going to overcome the "once the camels nose is under the tent" philosphy now is the time to do it. The grain industry has enjoyed record exports the past several years but it is a well known fact that cost of production has increased much more rapidly and the price received by the farmer and to further impact that situation is totally unacceptable and we would hope that you would reject the provisions contained in this legislation.

Sincerely,

Cecil L. Brennan,
Executive Vice President

cc: Charles Nelson, VP - Gratron
Stan Timmerman, Pres. - Oregon Wheat Growers League
Wes Grilley, Exec. VP - Oregon Wheat Growers League

This letter was sent to:

Bob Packwood, Ron Wyden, Les AuCoin, and Denny Smith.

Oregon
GRAIN TRANSPORTATION
CONSULTANTS
of the Pacific Northwest

Exhibit 2

July 15, 1981

The Honorable Slade Gorton
The United States Senate
Russell Senate Office Building, Room 127
Washington, DC 20510

Dear Senator Gorton: RE: COLUMBIA-SNAKE RIVER CLOSURE BILL

This letter is a follow up to our letter to you on June 10, 1981 on behalf of wheat producers in Oregon, Washington and Idaho. We were very gratified to learn of the activities of several of the members of the Pacific Northwest Congressional delegation of writing President Reagan urging reconsideration of proposals for full cost recovery water-way user taxes.

We understand that the sub-committee on Environment and Public Works intends to wait until the results of the Section 205 Study have been made known before consideration is given to reporting this legislation out of the sub-committee. We believe this is very important, however up to this point we are unaware of any input from the grain industry in the Pacific Northwest to this study and yet the proposed water-way user tax will impact more heavily upon grain than any other commodity on this river system.

For example, during the calendar year 1979, 7,527,918 tons of various commodities moved through Bonneville. Of this volume, 4,467,420 tons consisted of grain, primarily wheat. During the calendar year 1980, the tonnage moving through Bonneville increased to 8,931,354 tons of which grain accounted for 60%, since more than 5,346,873 tons of grain moved through Bonneville last year. This indicates that grain constitutes more total tonnage on the Columbia-Snake River System than all other commodities moving up or down the river and would further indicate that the impact caused by the user charge would fall heavily upon grain shippers, particularly producers since they bear the cost of marketing their grain and transportation is but one of the factors involved in marketing.

We would recommend that Congress look behind the development of the Columbia-Snake River System to determine the nature of the system. Bonneville was constructed during the 1930s as a WPA project and was co-justified because of hydro power and navigation. Fifty percent of the cost of construction at Bonneville was allocated against navigation, while only 15% of the cost of constructing Lower Granite Dam was allocated navigation. however all locks and dams built on this river system have been co-justified. even though the facilities are used for flood control, irrigation and recreation, as well as for hydro power and navigation.

The dams and locks on this river system are considered to have a high head, meaning that they have been peculiarly constructed for hydro power development as opposed to the locks on the Mississippi River having a low head construction and used predominately for navigation and flood control with little if any hydro power being generated at those facilities.

The best information we have from the North Pacific Division of the Corps of Engineers indicates the annual average operating and maintenance expense on this river system is approximately $7 million with an additional $9 million being spent on the Lower Columbia and with $150 million projected to be spent for the construction of a new lock at Bonneville. Since grain accounts for approximately 60% of the total tonnage on the river, it would follow that grain would have to absorb 60% of the O&M cost, or approximately $9.6 million annually, which would equal $1.81 per ton or about 5½¢ per bushel. This does not begin to consider the capital cost involved in construction. Coupling together the O&M and the capital cost would make the river unavailable to grain shippers as the cost would be exorbitant and would very effectively drive grain to the rails or other modes of transportation. The rail carriers are not in a position to handle larger volumes of grain than presently moving to the Columbia River export facilities as evidenced by a Portland terminal project authorized in accordance with DOT-FR-9045. This study was funded by Congress and completed in 1980. While the study consists of 73 pages of narative and several exhibits, it boils down to one concise statement which states, "However, an area of major importance in Portland is the limitation for expansion in service improvements in the industrial development of the Portland gateway in the 1980s". This federally sponsored study clearly indicates that the Portland gateway is currently congested and that it cannot be easily expanded to handle increased volumes. You must also consider that the rail carriers, port interest and others are seeking ways of moving huge quantities of coal through the Portland gateway by rail, meaning that an already congested area will be further congested by coal and certainly little if any expansion room will be available for an increased rail movement of grain not to mention an anticipated increased grain export program, so essential to our deficit balance of payments.

At the present time, rail carriers transport approximately 50% of the grain moving to export facilities on the Columbia River. During the last crop year, 1979-80, rail carriers handled approximately 200 million bushels of grain to these facilities, while barges moved approximately 170 million, and trucks moved about 24 million. While more current figures are not yet available, it is anticipated that the barge percentage will increase rather dramatically with rail movement remaining approximately the same, due to the fact rail carriers have effectively reached their limit of grain terminations at these facilities.

David Stockman in testimony before the Committee on Environment and Public Works in attempting to justify the administration's concept of water-way user charges on the basis that the individual water-way users are the only beneficiaries of this natural resource and that the public should not be taxed for the system. Mr. Stockman is totally wrong as any benefits accruing as a result of fuel efficient water transportation is in the best interest of the nation and it's citizens, not just those using or providing the service. The nation benefits by this most efficient transportation system in the form of reduced consumption of energy providing low cost transportation for grain and other export commodities and water transportation provides a viable alternative to rail and permits greater utilization of export facilities thereby minimizing handling cost of grain and permits American producers and exporters to compete in world markets.

As an alternative to this onerous, regressive tax, we would suggest that the Congress give serious consideration to permitting revenues derived from the locks and dams to be used for new construction as well as O&M. Since each dam and lock on the Columbia-Snake River System was co-justified, there is justifiable reason for the revenues derived from the sale of hydro power to be used for O&M of the dam, the lock, and the total river system. It would seem since navigation was beneficial in aiding and justifying the construction of the dam initially, that it should also benefit by the revenues derived through sale of hydro power.

Sincerely,

Cecil L. Brennan,
Executive Vice President

CLB/tf

cc: Don Phillips, President - Gratron - Harrington, WA
Stephen Naught, President - Washington Assn. of Wheat Growers
Brent Heinemann, Exec. Director - Washington Assn. of Wheat Growers

This letter was also sent to:

Henry M. Jackson, Joel Pritchard, Don Bonker, Mike Lowry, Thomas S. Foley, Norman D. Dicks, and Al Swify.

Exhibit 3

GRATRON
PACIFIC NORTHWEST GRAIN EXPORT ELEVATOR FACILITIES

LOCATION AND OPERATOR	STORAGE CAPACITY	RECEIVING FACILITIES AND TPH	LOADING CAPACITY (TPH)
PORTLAND			
Bunge Corp.	1,250,000	B.R.T. 2,000	1,200
Cargill	8,100,000	B.R.T. 1,400	1,200
Columbia Grain	1,500,000	B.R.T. 1,750	2,500
Louis Dreyfus Corp.	1,900,000	B.R.T. 800	1,000
KALAMA			
North Pacific Grain Growers	6,400,000	B.R.T. 2,720	1,815
LONGVIEW			
Continental Grain	5,016,000	B.R.T. 750	870
SEATTLE			
Cargill	4,200,000	R.T. 2,000	3,000
TACOMA			
Continental Grain	2,800,000	R. 1,200	2,000
United Grain Corp.	4,700,000	R.T. 850	800
VANCOUVER			
United Grain Corp.	5,350,000	B.R.T. 750	1,000
TOTALS:	41,216,000	14,220	15,385

TPH = Tons per hour

B = Barge
R = Rail
T = Truck

Exhibit 4

GRATRON
GRAIN RATES TO COLUMBIA RIVER PORTS
COLUMBIA-SNAKE RIVER SYSTEM BARGE SHIPPING POINTS

Effective: February 1, 1981
Includes Fuel Surcharge

RATE		FUEL S/C	PORT	OPERATOR	CAPACITY in 1000 Bu.	POOL
S/T	Bu.	S/T				
$3.47	.1173		The Dallas, OR	Cargill	250	Bonneville
3.47	.1173		The Dallas, OR	Interior Elevator	1300	Bonneville
3.65	.1095	4	Biggs, OR	Midco	220	The Dalles
3.97	.1191	4	Arlington, OR	Cargill	700	John Day
3.97	.1191	4	Roosevelt, WA	Farmers Whse.	770	John Day
3.97	.1191	4	Hogue Warner, OR	Morrow Co.	1100	John Day
3.97	.1191	4	Umatilla, OR	P.G.G.	2181	McNary
3.97	.1191	4	Port Kelley, WA	Walla Walla	3400	McNary
3.97	.1191	4	Wallula, WA	W.F.A.	1277	McNary
3.97	.1191	4	Burbank, WA	Cargill	2666	McNary
3.97	.1191	4	Pasco, WA	Continental	494	McNary
3.97	.1191	4	Kennewick, WA	N.P.G.G.	5587	McNary
4.40	.1320	6	Sheffler, WA	Walla Walla	533	Ice Harbor
4.40	.1320	6	Windust, WA	L.D.C.	165	Ice Harbor
4.74	.1422	7	Lyons Ferry, WA	Columbia	1255	Lower Monumental
4.95	.1485	8	Central Ferry, WA	Pomeroy	1435	Little Goose
4.95	.1485	8	Central Ferry, WA	Western Grain	2129	Little Goose
4.95	.1485	8	Central Ferry, WA	W.F.A.	980	Little Goose
4.95	.1485	8	Almota, WA	Almota	2150	Little Goose
5.17	.1551	10	Lewiston, ID	Lewis-Clark	2225	Lower Granite
5.17	.1551	10	Lewiston, ID	Coast Trading	730	Lower Granite
5.17	.1551	10	Clarkston, ID	Lewis-Clark	440	Lower Granite

S/T - Short Ton.

October 1, 1980 through September 30, 1981 - 4¢ gallon
October 1, 1981 through September 30, 1983 - 6¢ per gallon
October 1, 1983 through September 30, 1985 - 8¢ per gallon
October 1, 1985 - - 10¢ per gallon

Exhibit 5

REPORT OF GRAIN MOVEMENTS
BY POOL
ON COLUMBIA-SNAKE RIVER SYSTEM
AND
FUEL TAX PAYMENTS

POOL	S/C	1980		1979	
		Tonnage	Revenue	Tonnage	Revenue
Lower Granite	10	1,614,604	$161,460	1,129,507	$112,950
Little Goose	8	1,133,230	90,658	1,076,028	86,082
Lower Monumental	7	191,555	13,409	130,527	9,137
Ice Harbor	6	433,783	26,027	561,084	33,665
McNary	4	1,392,763	55,711	942,934	37,718
John Day	4	353,725	14,149	478,260	19,130
The Dalles	4	101,017	4,041	71,973	2,879
*Bonneville		139,196		77,307	
Totals:		5,350,873	$365,455	4,467,420	$301,551
	x2.5		$1,215,188		$735,877

* - Barge lines absorb.

Exhibit 6

GRATRON

DEPT. OF THE ARMY - CORPS OF ENGINEERS
REPORT OF COMMERCE FOR WILLAMETTE, COLUMBIA, AND SNAKE RIVERS

(In tons (2,000 lbs.)

Month and Year		1 White Wheat	2 Spring Wheat	3 Red Winter Wheat	4 Barley	5 TOTALS
April	1980	338,912	21,166	52,744		412,822
May	1980	309,675	36,629	77,126	2,618	426,048
June	1980	309,439	59,876	61,702		431,017
July	1980	391,311	31,503	47,745	1,600	472,159
August	1980	310,868	83,026	57,561	47,829	499,284
September	1980	263,381	53,229	58,614	24,381	399,605
October	1980	395,813	30,562	77,487	30,548	534,410
November	1980	366,695	39,762	92,545	18,742	517,744
December	1980	349,689	35,672	86,223	40,017	511,601
January	1981	358,773	31,977	78,295	90,725	559,770
February	1981	332,529	18,692	61,609	66,334	480,164
March	1981	465,905	20,461	59,088	53,653	599,107
April	1981	515,805	20,881	70,042	25,150	631,878
May	1981	483,800	36,920	55,055	13,303	589,078
Total		5,192,595	520,356	935,836	414,897	7,064,687
June - May		4,544,008	462,561	805,966	412,279	6,225,817
Bushels in 1,000's		149,995	15,265	26,597	13,605	

AUTHORITY: Portland District Corps of Engineers

Exhibit 7

GRAIN EXPORTS FROM PACIFIC NORTHWEST
JULY 1971 - JUNE 1976 AND JUNE 1976 - MAY 1981
(In 1,000 Bushel Units)

	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980	1980-1981
WHITE WHEAT	100270	147880	114803	178786	191229	172640	158319	172451	177522	252150
HARD RED WINTER	37827	65218	101786	67081	77885	56990	59211	99496	107198	107175
HARD RED SPRING	35534	66156	79651	47700	54423	48927	62184	73762	83957	70788
DURUM/MIXED WHEAT	1911	2017	2376	1300	1755	2039	3749	1901	3312	986
GRAND TOTALS	175542	281271	298616	294867	325292	280596	283463	347600	371989	431099
BARLEY	9027	27516	25307	18378	13136	30065	10953	6647	20170	40297

Source: U.S. Dept. of Agriculture, "Grain Market News".

Exhibit 8
Page 1 of 2

GRATRON

RECEIPTS OF *GRAIN AT COLUMBIA RIVER EXPORT HOUSES BY MODE OF TRANSPORTATION (in thousand bushels)

CROP YEAR	RAIL	BARGE	TRUCK	TOTAL
1976-77	112,360	120,678	13,560	246,598
% of total	45.6	48.9	5.5	
1977-78	118,137	130,941	20,956	270,034
% of total	43.8	48.5	7.7	
1978-79	169,471	151,894	19,345	340,710
% of total	49.7	44.7	5.6	
1979-80	199,790	169,437	23,799	393,026
% of total	50.8	43.1	6.1	
1980-81	247,686	217,687	28,024	493,397
% of total	50.2	44.1	5.7	

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* Includes wheat and barley.

Page 2 of 2

GRATRON

TOTAL RAIL, TRUCK, AND BARGE RECEIPTS OF WHEAT AT NORTH COAST MARKETS

In Thousand Bushels

Crop Year	Rail	Truck	Barge	Total Receipts
1965-66				
Total North Coast	143,606	13,167	27,352	184,125
% of total	78	7	15	
1966-67				
Total North Coast	125,289	15,351	30,494	171,134
% of total	73	9	18	
1967-68				
Total North Coast	153,189	15,678	27,206	196,073
% of total	78	8	14	
1968-69				
Total North Coast	142,559	9,878	39,461	191,898
% of total	74	5	21	
1969-70				
Total North Coast	161,687	10,533	47,611	219,831
% of total	73	5	22	
1970-71				
Total North Coast	152,469	11,096	49,641	213,206
% of total	72	5	23	
1971-72				
Total North Coast	135,792	6,777	63,726	206,295
% of total	66	3	31	
1972-73				
Total North Coast	219,205	11,707	80,313	311,225
% of total	70	4	26	
1973-74				
Total North Coast	247,769	13,156	63,973	324,898
% of total	77	4	19	
1974-75				
Total North Coast	224,317	18,740	80,404	323,461
% of total	69	6	25	
1975-76				
Total North Coast	209,614	22,692	103,501	335,807
% of total	62	7	31	
1976-77				
Total North Coast	156,752	19,533	117,966	294,251
% of total	53	7	40	

Exhibit 9

SEASON BARGE WHEAT SHIPMENTS BY INLAND WATERWAY SYSTEM AND TOTAL EXPORTS
(000 Bushels)

River System	1978-79	1979-80	1980-81
Mississippi	112,278	136,089	200,951
Missouri	31,461	35,772	31,192
Illinois	2,458	8,574	16,135
Ohio	11,271	10,713	33,606
Columbia-Snake	141,532	150,354	178,231
Totals	299,000	341,502	460,115
Total Exports	1,124,122	1,290,186	1,422,671

Authority - USDA

STATEMENT TO WATER RESOURCES SUBCOMMITTEE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
AUGUST 19, 1981, VANCOUVER, WASHINGTON
BY
RICHARD D. FORD, EXECUTIVE DIRECTOR, PORT OF SEATTLE

Mr. Chairman and members of the committee, I thank you for the opportunity to appear today to present the views of the Port of Seattle on the matter of user charges in the dredging of deep-water ports. I have also been authorized to speak on behalf of the Ports of Everett and Tacoma. I am confining my comments to deep-draft harbors since these ports are not located on shallow draft waterway systems.

The Ports of Everett, Seattle, and Tacoma are natural deep-water ports; however, certain of our facilities are on dredged channels. In Seattle, for example, the Duwamish Waterway is not a natural deep-water harbor, and it provides the access to much of the Seattle commercial harbor. Orginally dredged and developed by a local commercial waterway district and now under the jurisdiction of the Port of Seattle, this facility is a Federally-maintained waterway. The Duwamish Waterway is about five miles in length with about one-half its length maintained at 30 feet and the balance at 14 feet.

The Port of Seattle has been working with the Corps of Engineers in a major study over the last several years to determine the feasibility of deepening the deep draft portion of the waterway to 40 feet and widening that segment at the Spokane St. bridges from

250

a current 150 feet to 200 feet. We estimate this project to cost in excess of $50 million. Everett and Tacoma also have authorized Federal projects that form an integral part of their total harbor facilities.

These central Puget Sound ports believe the issue of waterway fees can best be addressed if it is divided into three parts. Part one deals with the maintenance and operation of existing authorized harbor and channel facilities. In this respect, we believe the United States Government should continue to provide funds for maintenance and operation of existing authorized projects as it has in the past. Millions of dollars have been invested by public and private organizations in the belief that the existing waterways would be maintained by the United States Government. To upset that long established relationship, in our judgment, would be a breach of faith to these users. At the least there should be careful analysis of the possible economic dislocations under a move to local financing of maintenance and operations. The impact on U.S. exporters and the dislocation of essential industries are unanswered questions under the administration's proposal. We are unaware of any accurate forecasts of the possible economic consequences of these changes. In other words gentlemen, we believe the Office of Management and Budget has not done its homework.

Part two involves new projects to be authorized or financed in the future. We believe it is appropriate for the United States to require local cost sharing for the capital and maintenance cost of any new project. I include in this our own project on the Duwamish. This will test the economic viability of each proposed expansion, addition or improvement. Cost sharing has been used for many years in other areas of transportation such as the airports or highway systems. State or local entities have been required to provide a portion of the funding to match the Federal Government's expenditure. We would hope Congress would clarify the law to permit local user changes. This is needed to give local ports the financial resources to carry out vital projects.

Finally, the Port of Seattle, Tacoma, and Everett oppose the establishment of a trust fund and the levying of nationwide user fees to support harbor and waterway costs. The purpose of Federal legislation should be to test the economic viability of each waterway or harbor improvement. Local interest promoting such improvements must be required to step up and pay a share of the cost. The establishment of a trust fund or levying user taxes on a nationwide basis circumvents this objective and would not serve the national interest. If Congress believes those consuming imported goods are not paying adequate taxes, simply levy added duties and put it in the treasury. The Customs surcharge is not a user charge at all. A true user charge might well divert cargo to Canada or Mexico for surface movement to the United States.

I thank the committee for its courtesies and I would be happy to answer any questions.

STATEMENT TO WATER RESOURCES SUBCOMMITTEE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
AUGUST 19, 1981, VANCOUVER, WASHINGTON
RICHARD D. FORD, EXECUTIVE DIRECTOR, PORT OF SEATTLE

Since submittal of my written testimony to the subcommittee, the following ports, in addition to Seattle, Tacoma, and Everett, have requested that my statement also be entered in their behalf:

Port of Galveston - Texas
Port of Brownsville - Texas
Port of Corpus Christi - Texas
Port of Los Angeles - California
Ports of New York/New Jersey - New York/New Jersey
Port of New Orleans - Louisiana
Port of Oakland - California
Port of San Francisco - California
Port of Long Beach - California

TESTIMONY
SENATE ENVIRONMENT & PUBLIC WORKS COMMITTEE
SUB-COMMITTEE ON WATER RESOURCES
AUGUST 19, 1981
VANCOUVER, WASHINGTON
BY
HENRY E. SOIKE, GENERAL MANAGER
PORT OF GRAYS HARBOR, WASHINGTON

Mr. Chairman and members of the committee, my name is Henry E. Soike and I am the General Manager of the Port of Grays Harbor, the only deep water port on the coast of the State of Washington. I am pleased to have the opportunity to testify today regarding the views of our port on legislation pertaining to user fees and cost sharing in connection with the operation, maintenance and construction of deep water navigation facilities throughout the United States.

In 1965 our port district sought federal assistance to evaluate the feasibility of increasing the draft of the presently authorized 30-foot project. The Corps of Engineers have been fully funded to conduct the general investigation study during the past 16 years. In FY-82 a revised feasibility report will be forwarded for congressional consideration. The first feasibility report was completed in July of 1976 with a projected cost of $47.5 million. Due to cost escalations, the revised cost estimates in 1980 totaled $75 million. Fortunately, favorable benefit to cost ratios continue to be identified in the Corps general investigation study.

In 1975 Senators from the State of Washington encouraged the Port of Grays Harbor to involve federal agencies in an estuary-wide management planning effort for

Grays Harbor. This request was triggered by permitting difficulties associated with industrial expansion on our estuary, and by a federal agency need to anticipate future development requirements, some of which would be induced by a deeper draft project. For the past six years, the Port of Grays Harbor has played a leadership role in developing a balanced plan that will provide predictability in economic development as well as preservation of environmentally sensitive areas. This plan, which has gained national significance, has been conceptually approved and a final planning document is being prepared. Adoption of this plan is anticipated by seven local municipalities, four state agencies and four federal agencies consisting of the Fish & Wildlife Service. National Marine Fisheries Service, Environmental Protection Agency and the Corps of Engineers. The federal office of Coastal Zone Management is preparing an environmental impact statement under NEPA which will contain Memorandums of Understanding by those federal entities involved in the planning process.

Attached to my statement as Exhibit A is a list of 13 federal acts, 4 executive orders and 3 state laws and regulations which have governed our Deeper Draft and Estuary Management studies. It is significant to note that all but two of these laws and regulations have been passed since the studies were initiated, documenting the reasons for delays in the planning and study processes.

The finest timber growing lands in the North American continent are located on the Olympic Peninsula and other areas tributary to the Port of Grays Harbor. The bulk of our waterborne commerce has historically been linked to that renewable natural resource. Marine terminal facilities on Grays Harbor have made it possible for timber products to move in coastwise and export markets, a fact which has become even more important since the closure of Willapa Harbor, 15 miles south of Grays Harbor, to deep draft shipping. The federal government has substantial national forests in this region. A.erage stumpage for sawn timber sold on national forests increased from $41.90 in 1970 to $432.20 in 1980 on Douglas fir; and $20.50 in 1970 to $208.00 in 1980 on western hemlock. This tenfold increase in federal timber sales, restricted to domestic processing resulted in substantial increases in revenue to the general fund of the United States, and made a substantial contribution to the balance of trade. These statistics are documented on Exhibit "B" attached to my statement.

In legislative considerations to impose user fees, mention is usually made about credits for national defense requirements. Following the Port Chicago disaster in World War II, the Port of Grays Harbor responded by handling substantial tonnage of ammunition across public terminals. Also, Grays Harbor led all other ports in the Pacific Northwest in lumber shipments during World War I and handled substantial volumes of timber during World War II, the Korean. War and the Vietnam Conflict. Lumber is essential in home construction, but history has also proven its critical importance in military conflicts as well.

During the Deeper Draft study years, public and private interests have kept faith, depending upon the constitutionally established partnership whereby the federal government constructs and maintains navigation facilities. Since 1965, when our Deeper Draft studies were initiated, five modern terminals, with costs totaling $49 million, have been completed. In each case, these terminals have been designed to accommodate larger vessels, loading to a greater draft than the current project will allow.

The Washington Public Ports Association has just completed an update of its 1975 Port Systems Study, including trade forecasts through the year 2000. These forecasts indicate that the trade volume for the State of Washington will increase 2 1/2 times the 1979 levels by the year 2000. Substantial increases are predicted in timber products, but the most dramatic increases will occur in grain and, of course, the much discussed export of coal. The study indicates that additional berths will be required on Grays Harbor to handle increases in the movement of forest products. It also suggests that with the development of additional sites, coal and grain can be economically handled through Grays Harbor. Our estuary management planning effort has now identified sites that can be used for the movement of these additional bulk commodities.

I am well aware of the studies and projections, and the role Pacific Northwest ports must play in the export of coal. I have also heard knowledgeable people state emphatically that west coast coal export facilities must be located in ports served by both the Burlington-Northern and Union Pacific railroads. One only needs to look at railroad maps to confirm the limited availability of both railroads at Pacific Northwest ports. This dual opportunity exists in Portland, Oregon, the deep draft ports on the Washington side of the Columbia River, Grays Harbor and ports on Puget Sound as far north as Seattle. The ports of Seattle and Tacoma have announced that they do not have sites or plans to develop coal export facilities. The only viable sites on Puget Sound are privately owned in the Dupont/Steilacoom area between the Nisqually Delta and Tacoma. Most of the sites in this area are zoned conservancy under the Washington State Shorelines Management Act of 1971. Private environmental groups have recently stated that permit applications for coal export facilities may be the environmental battle of the decade.

The Grays Harbor Deeper Draft Feasibility Study and Estuary Management Plan, both of which should be completed in FY-82, will provide predictability on Grays Harbor for handling additional bulk commodities. Our Grays Harbor Pilots have confirmed that they can handle laden drafts up to 44 feet, with twice daily tide assists, when the 40-foot project is completed.

I am painfully aware of the position of some of the larger ports regarding the imposition of user fees on a segmented basis. This is also the administration's approach in S-809. The Port of Grays Harbor has endorsed the position paper developed by Melvin Shore, Director of the Port of

Sacramento, on behalf of U.S. Port System Advocates. Furthermore, the Port of Grays Harbor has officially endorsed S-1586, the legislation just introduced by Senator Mark O. Hatfield of Oregon.

The differences between ports on the user fee issue reminds me of the private power versus public power controversy during the middle sixties over who was going to get the customers. I would hope we have learned a lesson from that experience and can all work together to take care of the customers that will be seeking modern marine transportation facilities between now and the year 2000. I am convinced that all of the ports' capabilities will be required to meet those demands.

It would be very difficult to identify a time in this nation's history when the partnership between the federal government and local ports is more desperately needed to help reestablish the economic well being of our nation.

I want to thank the Committee for the opportunity to testify and the Port of Grays Harbor hopes for a congressional decision that will be in the best interests of this nation.

FEDERAL ACTIONS

1. River and Harbor Act of 1899 (Section 10)
2. Fish and Wildlife Coordination Act of 1958
3. Federal Water Project Recreation Action Act of 1965
4. National Historic Preservation Act of 1966
5. National Environmental Policy Act of 1969 (NEPA)
6. Coastal Zone Management Act of 1972
7. Marine Protection, Research, and Sanctuary Act of 1972 "Ocean Dumping Act"
8. Marine Mammal Protection Act of 1972
9. Endangered Species Act of 1973
10. Flood Disaster Protection Act of 1973
11. Deep Water Port Act of 1974
12. Clean Water Act of 1977 (Section 404)
13. Clean Air Act of 1977

EXECUTIVE ORDERS

1. No. 11514 - Pertains to Protection and Enhancement of Environmental Quality (March 5, 1970)
2. No. 11593 - Pertains to Protection and Enhancement of the Cultural Environment (May 13, 1971)
3. No. 11988 - Pertains to Flood Plains. (May 24, 1977)
4. No. 11990 - Pertains to Wetlands (May 24, 1977)

STATE ACTIONS

1. State Environmental Policy Act of 1971 (SEPA)
2. Shoreline Management Act of 1971
3. Hydraulic Project Approval Law

Exhibit "A"

Table 31--Average stumpage prices for sawtimber sold on National Forests by selected species, Pacific Northwest Region, 1969-80[1]

(In dollars per thousand board feet)

YEAR AND QUARTER	DOUGLAS-FIR		PONDEROSA AND JEFFREY PINES	SUGAR PINE	WHITE PINE	LODGEPOLE PINE	ENGELMANN SPRUCE	SITKA SPRUCE	WESTERN HEMLOCK	CEDARS[2]	LARCH	NOBLE FIR AND SHASTA RED FIR	OTHER TRUE FIRS	ALL SPECIES
	WEST SIDE	EAST SIDE												
1969	82.20	32.20	46.60	58.20	56.70	15.10	30.40	19.70	45.10	40.10	33.40	46.10	42.60	56.60
1970	[redacted]	8.40	20.30	30.00	37.30	4.20	3.90	11.70	[redacted]	14.70	10.90	15.10	11.60	26.70
1971	49.10	4.40	22.30	23.10	22.30	5.20	8.00	18.10	20.60	17.70	5.30	24.60	12.20	35.10
1972	71.70	15.60	38.40	26.00	35.80	10.60	27.20	28.00	48.00	67.50	13.50	100.20	33.00	53.20
1973	138.10	60.40	77.70	60.50	50.70	38.40	55.60	93.40	99.20	146.80	53.90	81.40	73.80	[illegible]
1974	202.40	68.20	110.60	139.10	121.00	25.70	50.20	72.60	110.80	217.00	11.00	136.20	80.90	147.40
1975	169.50	34.30	43.10	109.90	84.40	15.40	13.70	75.90	68.50	119.20	5.60	117.70	45.10	101.60
1976	176.20	38.60	79.40	118.90	116.00	40.70	10.50	83.10	78.10	180.30	20.30	105.60	55.00	113.70
1977	225.90	71.20	138.40	162.80	142.70	35.40	36.50	103.00	89.70	149.60	62.10	128.90	85.10	151.80
1978	250.31	98.50	218.70	207.90	123.70	41.60	85.40	109.50	111.70	206.60	58.40	122.50	99.10	185.00
1979—														
1st quarter	347.30	102.40	234.70	230.30	199.60	39.00	102.50	99.70	152.20	397.70	82.40	135.10	242.40	263.40
2d quarter	388.40	103.00	254.70	279.00	164.20	21.40	71.60	112.70	164.90	162.30	72.90	185.20	201.30	255.90
3d quarter	424.90	59.20	223.50	303.50	179.40	66.30	40.20	393.90	251.20	357.50	82.10	275.90	180.40	276.90
4th quarter	446.10	116.40	264.20	171.40	177.40	21.20	64.00	101.10	221.30	155.00	101.80	206.60	77.30	274.90
1979 average	394.30	81.70	238.00	267.30	181.90	47.10	51.60	227.90	197.10	329.10	90.50	211.30	189.80	270.00
1980—														
1st quarter	489.80	105.10	204.00	280.00	139.20	60.60	48.60	325.30	202.90	378.90	33.30	251.90	205.00	332.40
2d quarter	373.00	47.20	185.40	153.60	133.20	23.10	26.80	584.50	226.90	179.00	17.30	287.30	185.40	265.60
3rd quarter	400.30	53.90	170.30	115.30	55.60	43.40	22.20	251.80	218.90	148.40	53.30	232.50	142.50	245.20
4th quarter	458.20	84.50	232.20	147.00	92.70	43.80	42.50	86.20	151.80	609.88	4.40	180.32	132.80	312.00
1980 average	432.20	70.80	190.80	167.00	102.80	44.60	34.20	306.50	208.00	301.00	43.60	241.80	167.90	285.50

Source--Forest Service, U.S. Department of Agriculture. Pacific Northwest Region includes Oregon and Washington.

[1] Includes bid price plus deposits for sale-area betterment.

[2] Includes Port-Orford-cedar.

Exhibit "B"

United States
Department of
Agriculture

Forest Service

Pacific Northwest
Forest and Range
Experiment Station

1981

Production, Prices, Employment, and Trade

in Northwest Forest Industries Fourth Quarter 1980

Florence K. Ruderman

OREGON PUBLIC PORTS ASSOCIATION
620 S.W. FIFTH AVENUE
SUITE 802
PORTLAND, OREGON 97204
~~222-0184~~
222-0146

TESTIMONY OF BILL HERDER, OPPA PRESIDENT, BEFORE U.S. SENATE SUBCOMMITTEE ON WATER RESOURCES -- AUGUST 19, 1981 -- VANCOUVER, WASHINGTON

My name is Bill Herder. I am a port commissioner for the Port of Newport and also serve as president of the Oregon Public Ports Association. My testimony today will be on behalf of the Association.

I would like to thank you, Senator Gorton, and the committee staff for providing this opportunity to the Pacific Northwest region to respond to a very important issue pertaining to the future economic stability and development of the area.

For Oregon's twenty-three port districts, the federal waterway and cost recovery plan proposed by the federal administration is of great concern.

Oregon waterway ports, like ports in the State of Washington, are geographically distributed along the Pacific coast and inland up the Columbia River. Their business is to stimulate economic opportunities for the state and for the local districts in which they are located.

In Oregon, ports facilitate oceangoing ship and river barge commerce, and develop industrial land, operate airports and bridges, promote tourism and serve the state's major exporting industries -- timber, fishing and agriculture.

- more -

MEMBER PORTS

Port of Alsea
Port of Arlington
Port of Astoria
Port of Bandon
Port of Bay City
Port of Brookings
Port of Cascade Locks
Port of Coos Bay
Port of Coquille River
Port of Gold Beach
Port of Hood River
Port of Morrow
Port of Nehalem
Port of Newport
Port of Portland
Port of Port Or[illegible]
Port of Siuslaw
Port of St. Helens
Port of The Dalles
Port of Tillamook Bay
Port of Toledo
Port of Umatilla
Port of Umpqua

Statewide, the total impact on jobs and payrolls in port communities tied to port activities is estimated at nearly 60,000 jobs and close to $1 billion in annual payrolls.

In Eastern Oregon, grain growers, timber and other agricultural producers depend on ports and river transportation facilities to get their shipments to market.

On the coast, ports provide vital facilities to the state's 8,500 commercial fishermen and the related fish processing industry. Coastal ports also assist Oregon's third largest industry, tourism, by operating or leasing recreational marinas and other tourist facilities which, in turn, circulate dollars to local merchants, restaurants, gas stations and motels.

On the South Coast, the Port of Coos Bay is the West Coast's leading exporter of forest products.

I outline these diverse functions of Oregon ports for you to emphasize how critical Oregon ports are to the total economic health and stability of the state and the region, and to emphasize the possible adverse effect which would result if ports were unable to respond adequately and economically to their users' needs and demands.

The Oregon Public Ports Association has reviewed the federal administration's proposals for future financing of the nation's rivers and harbor systems, as embodied in S. 809 and S. 810 now before the U. S. Senate.

The Association understands and sympathizes with the reasoning of the administration's cost recovery objectives.

- more -

However, OPPA finds these proposals, based on waterway user charges and federal cost recovery for maintenance of the waterways system entirely from local sources, are objectionable and potentially very detrimental to Oregon ports and the state's economy.

We view the administration's proposals as creating preferential treatment for ports and waterways with low maintenance needs and high commercial traffic.

The proposals would especially place the Columbia/Snake River system at a competitive disadvantage with other transportation systems, because of the area's high maintenance needs. New projects, such as enlarging the locks at Bonneville Dam and deepening the mouth of the Columbia River, would probably never happen because of the prohibitive costs which would have to be passed on to the system's users.

Amendments to the bills proposed by Senator Domenici of New Mexico would separate deep and shallow-draft channels and have different cost recovery proposals for each. OPPA, and especially its member ports along the Columbia, find these proposals equally objectionable.

Segmented charges like these would place an inland system like the Columbia River in a vulnerable position, because users would be taxed twice -- once for shallow-draft access and once for deep-draft access.

Coastal ports would be no less affected by the proposed user fees. In Oregon, most coastal shallow-draft ports have little or no commercial cargo traffic. Coastal ports would be forced to collect user fees from commercial fishing and recreation users for recovery of the port's obligation to pay for its maintenance costs. I don't have to tell you, Senator, that the Northwest

- more -

fishing industry does not need additional operating costs to add to its already dismal plight. The timber industry is another example of a burdened industry which would not easily absorb additional handling costs.

The loss of diverted cargo because of increased tonnage costs and the loss of ports' ability to maintain safe and navigable waterways could potentially result in region-wide economic displacement.

If local participation in the cost of maintaining waterways is to be introduced, OPPA believes that the principles for cost recovery contained within S. 1586, introduced by Senator Hatfield of Oregon, come near to representing what we believe should guide the federal government in the development and maintenance of the national waterways system.

Senator Hatfield's proposal represents a workable and equitable approach. The bill would place a uniform tonnage charge on international cargo. The tonnage proceeds would be shared from the federal level among all U.S. ports for maintenance costs.

For new deep-draft waterway projects, local entities would have to cover 50% of the total cost through local user fees. We believe this alternative concept addresses our concern about preferential port treatment and selective economic dislocation.

While agreeing with the principles set forth in Senator Hatfield's bill, the Association does urge clarification of several specific areas not yet addressed in detail, which would be of importance to both Oregon and Washington ports:

- more -

1) What would be the position of shallow-draft coastal ports under the bill? These ports are not mentioned in the original version.
2) Can a process be developed that would streamline the authorization and appropriations steps anticipated under the bill for new construction projects?
3) Where does the proposed project to deepen the mouth of the Columbia River fit under the bill?

Subject to the development of responses to these and other details of the bill, the Oregon Public Ports Association urges support of S. 1586 as an alternative to the approach contained in S. 809 and S. 810.

Again, I thank you for this opportunity to Oregon ports to express their concerns and opinions.

I will be glad to answer any questions I can for the Senator.

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STATEMENT BY CONGRESSMAN NORMAN D. DICKS
SENATE WATER RESOURCES SUBCOMMITTEE
VANCOUVER, WASHINGTON
AUGUST 19, 1981

MR. CHAIRMAN, SENATOR GORTON, IT IS INDEED A PLEASURE TO BE HERE TODAY TO TESTIFY ON ISSUES OF PROFOUND IMPORTANCE TO THE PORT INDUSTRY OF THIS STATE AND THE NATION. SPECIFICALLY, I INTEND TO ADDRESS MY COMMENTS TO TWO LEGISLATIVE PROPOSALS WHICH I OPPOSE AS INTRODUCED: S.810, AND ITS COMPANION H.R. 2962, WHICH PROPOSES TO ALLOW THE CORPS OF ENGINEERS TO LEVY A VARIETY OF USER FEES ON INLAND WATERWAY USERS IN ORDER TO RECOVER ALL CAPITAL AND MAINTENANCE OUTLAYS ON INLAND WATERWAYS; AND S.809, AND IT'S COMPANION H.R. 2959, WHICH SIMILARLY MANDATES THE RECOVERY OF ALL CAPITAL, OPERATION AND MAINTENANCE COSTS ASSIGNABLE TO COMMERCIAL TRANSPORTATION THROUGH DEEP-DRAFT CHANNELS.

ALLOW ME TO ADDRESS FIRST THE ISSUE OF INCREASED USER TAXES ON INLAND WATERWAYS.

COMING FROM THE PACIFIC NORTHWEST, MY CONCERN IS CHIEFLY WITH THE COLUMBIA/SNAKE RIVER SYSTEM, ONE OF THE NATIONS MOST IMPORTANT WATERWAY SYSTEMS AND THE PORT OF TACOMA. THERE ARE 19 PORT DISTRICTS ON THE NAVIGABLE SHALLOW-DRAFT PORTION OF THE COLUMBIA/SNAKE SYSTEM. THE LARGEST IS THE PORT OF PORTLAND, ONE OF THE HIGGEST TONNAGE EXPORT PORTS ON THE WEST COAST. THERE ARE ALSO MANY ACTIVE PORTS FURTHER UPSTREAM. IN FACT, DURING CALENDAR YEAR 1979, 7,527,918

TONS OF VARIOUS COMMODITIES MOVED THROUGH THE BONNEVILLE LOCK. DURING THE 1980 CALENDAR YEAR THIS INCREASED TO 8,931,354 TONS AND RECENT STUDIES INDICATE THE TOTAL TONNAGE MOVING THROUGH THE COLUMBIA/SNAKE RIVER SYSTEM WILL CONTINUE TO INCREASE.

HOWEVER, IF THIS PROPOSED LEGISLATION IS PASSED THE RESULTING INCREASE IN TRANSPORTATION COSTS WILL RENDER OUR EXPORTS LESS COMPETITIVE ON THE WORLD MARKET AND WILL, IN EFFECT, REDUCE OUR CURRENT VOLUME OF PORT ORIGINATED EXPORTS. RECENT ESTIMATES INDICATE, FOR EXAMPLE, THAT AS MUCH AS 4 TO 5 MILLION TONS OF OCEAN GOING CARGO FROM COLUMBIA/SNAKE RIVER PORTS WILL BE LOST IF S. 810 IS PASSED AS PRESENTLY WRITTEN. THIS DROP-OFF IN CARGO COULD MEAN A LOSS OF $750 MILLION TO THE PACIFIC NORTHWEST ECONOMY AND POTENTIALLY 15,000 OF 99,000 PORT RELATED JOBS. FOR A REGION ALREADY REELING UNDER THE IMPACT OF DOUBLE-DIGIT UNEMPLOYMENT AND INTEREST RATES AFFECTING THE HOMEBUILDING AND FOREST INDUSTRY THIS LOSS COULD BE DEVASTATING.

FINALLY IT APPEARS THAT THE ADMINISTRATION JUSTIFIES THIS IMPOSITION OF INCREASED WATERWAY USER FEES ON THE GROUNDS THAT THE INDIVIDUAL WATER-WAY USERS ARE THE SOLE BENEFICIARIES OF THIS NATIONAL RESOURCE. ON THE CONTRARY, A FUEL EFFICIENT WATERWAY TRANSPORTATION SYSTEM PROVIDING LOW COST TRANSPORTATION FOR GRAIN, COAL, AND OTHER EXPORT COMMODITIES OBVIOUSLY BENEFITS THE ENTIRE NATION THROUGH REDUCED COMMODITY COSTS, IMPROVED BALANCE OF PAYMENTS AND REDUCED INFLATION THROUGH COMPETITION IN THE TRANSPORTATION SECTOR OF OUR NATIONAL ECONOMY.

AS THE CONGRESSMAN FROM THE SIXTH CONGRESSIONAL DISTRICT REPRESENTING THE PORT OF TACOMA, ONE OF THE FINEST NATURAL DEEP-DRAFT PORTS IN THE WORLD, AND OTHER DEEP-DRAFT PORTS, I AM ALSO CONCERNED ABOUT THE EFFECTS OF S.809 AND IT'S COMPANION H.R. 2959 AS PROPOSED.

THIS PROPOSAL WOULD GREATLY ALTER THE TRADITIONAL SYSTEM OF FINANCING PORT DEVELOPMENT THAT HAS EXISTED FOR OVER 150 YEARS. IT IGNORES THE HISTORICAL REASON BEHIND FEDERAL INVOLVEMENT IN PORT DEVELOPMENT: THAT ALL CONSUMERS AND TAXPAYERS ACROSS THE NATION BENEFIT FROM AN EFFICIENT PORT AND WATERWAY SYSTEM.

I AM ALSO VERY CONCERNED ABOUT THE ECONOMIC RAMIFIACTIONS OF REMOVING THE FEDERAL GOVERNMENT FROM MAINTENANCE AND OPERATION OF EXISTING AUTHORIZED PROJECTS.

AT PRESENT THERE IS NO ANALYSIS AVAILABLE ON THE IMPACT THIS BILL WOULD HAVE ON U.S. EXPORTERS OR THE POSSIBLE ECONOMIC DISLOCATIONS WHICH MIGHT OCCUR. FOR INSTANCE, CAN WE GAUGE HOW MUCH TRADE WILL BE DIVERTED TO PORTS IN CANADA AND MEXICO WHICH HAVE NO USER FEES AND THE RESULTING IMPACT ON DOMESTIC PORT RELATED ECONOMIES? I BELIEVE THAT WE MUST ESTIMATE AS ACCURATELY AS POSSIBLE THE EFFECTS OF LEGISLATION OF THIS NATURE BEFORE WE MOVE AHEAD.

FINALLY, I AM NOT SURE THAT THE IMPOSITION OF A NATIONWIDE USER FEE IS THE BEST WAY TO PROMOTE INCREASED LOCAL PARTICIPATION IN PUBLIC PORT AND WATERWAY DEVELOPMENT. THE OBJECTIVE OF ANY FEDERAL LEGISLATION MUST BE TO GRANT LOCAL INTERESTS THE BURDEN OF PROVING THE ECONOMIC VIABILITY OF ALL PORT IMPROVEMENTS THROUGH DIRECT FINANCIAL INVOLVEMENT. THE IMPOSITION OF A NATIONAL USER FEE MAY SHORT-CIRCUIT THIS OBJECTIVE. I BELIEVE WE MUST EXAMINE THIS PROPOSAL FURTHER.

MR. CHAIRMAN, SENATOR GORTON, I UNDERSTAND ~~THE NEED TO RAISE ADDITIONAL REVENUES TO HELP DEFRAY~~ THE PHENOMENAL COST OF PORT AND WATERWAY MAINTENANCE, OPERATION AND DEVELOPMENT. AS A PREVIOUS MEMBER OF THE HOUSE APPROPRIATION SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT I AM FAMILIAR WITH THE FIERCE COMPETITION BY PORT DISTRICTS OVER LIMITED FEDERAL FUNDS. DUE TO CURRENT BUDGETARY RESTRICTIONS, THIS SUBCOMMITTEE DID NOT PROVIDE FUNDS FOR ANY NEW CORPS PROJECTS IN F.Y. 1982. THIS SITUATION CANNOT CONTINUE. SOME FORM AND LEVEL OF PORT AND WATERWAY USER FEES MAY BE NECESSARY FOR THE CONTINUED EFFICIENT DEVELOPMENT OF THIS VITAL TRANSPORTATION SYSTEM. I LEAVE THAT DETERMINATION TO THE PROPER HOUSE AND SENATE AUTHORIZING COMMITTEES.

HOWEVER, I DO BELIEVE THAT WE MUST NOT ACT IN HASTE WITHOUT KNOWLEDGE OF THE FACTS. THE PORT AND WATERWAY USER FEE ISSUE MUST BE VIEWED IN A BROADER PERSPECTIVE THAN SIMPLY THE NEED TO BALANCE THE FEDERAL BUDGET. INCREASED USER FEES MUST ALSO BE EVALUATED IN LIGHT OF THEIR IMPACT ON THE DEVELOPMENT OF AN IMPORTANT TRANSPORTATION MODE, ON REGIONAL ECONOMIES, INTERNATIONAL TRADE AND EVEN OUR NATIONAL DEFENSE.

I AM PLEASED THEREFORE THAT YOU HAVE PROVIDED INTERESTED PARTIES IN THE PACIFIC NORTHWEST WITH THE OPPORTUNITY TO VOICE THEIR CONCERNS TO YOU TODAY. I HOPE THAT TESTIMONY RECEIVED HERE AND ELSEWHERE WILL PROVIDE THE COMMITTEE WITH SUFFICIENT INFORMATION TO DEVELOP A WORKABLE PROGRAM FOR THE CONTINUED DEVELOPMENT OF AN EFFICIENT PORT AND WATERWAY SYSTEM ACROSS THE NATION.

THANK YOU.

Before The

Committee on
Environment and Public Works
U. S. Senate

Statement of John F. Weisser
Assistant General Solicitor
Union Pacific Railroad Company

On S. 810
Inland Waterway User Fees
and Related Matters

Vancouver, Washington
August 19, 1981

STATEMENT OF JOHN F. WEISSER

My name is John F. Weisser and I am Assistant General Solicitor for Union Pacific Railroad Company at Portland, Oregon. My work covers our operations in the parts of the States of Oregon and Washington which are adjacent to the Columbia-Snake River System used by water carriers in moving revenue freight for shippers and receivers in this area. I am offering this Statement on behalf of Union Pacific and Burlington Northern Railroad Company, both of which have lines along the Columbia River that compete for the traffic moving between upriver points and lower Columbia River ports. Union Pacific's line is on the south bank of the Columbia River while Burlington Northern's line is on the north bank. Their locations are shown on the attached Exhibit A which also shows the 8 dams on the Columbia and Snake River system which forms an inland waterway extending 486 miles from the Pacific Ocean to Lewiston, Idaho.

The Columbia-Snake River was not a system opened to navigation naturally. For many years, navigation was restricted by rapids at Cascade Locks and Celilo (near The Dalles dam). Steamboats operated above or below the rapids and only occasionally could they make it over the rapids during high water. The first railroads in the Pacific Northwest were portage railroads to haul freight around these rapids. Locks were subsequently built at

Cascade Locks and Celilo to aid navigation. The moder development of barge traffic on the Columbia-Snake River system has only been possible because of government subsidy, i,e., construction of locks in the early days and more recently the inclusion of locks in dams constructed on the Columbia and Snake Rivers starting with the Bonneville Dam in 1938. This construction ended with the completion of the Lower Granite Dam in 1975 which extended navigation to Lewiston, Idaho. As navigation has extended up the Columbia-Snake waterway, barge traffic has increased, largely at the expense of railroads.

Both Union Pacific and Burlington Northern own and maintain tracks on the right of way along the Columbia-Snake Rivers. Based on national averages, it takes approximately 34% of the railroads' gross revenues to own and maintain these tracks. Barge lines, in contrast, have enjoyed a subsidy of 42% of their gross revenues and have not paid either construction or maintenance costs for their right of way until a tax on fuel was set at 4 cents per gallon. Eventually, under present law, 10 cents per gallon will be assessed by 1985 which will cover only approximately 13% of the cost of maintaining the inland waterway system. Columbia-Snake River traffic totaled 8,931,854 tons in 1980, and the total cost for operation and maintenance of the eight locks and the channel to Vancouver, Washington, was $7,086,087 in fiscal year 1980 according to a recent Port of

Portland study. These figures demonstrate an average subsidy of at least 79 cents per ton for barge traffic on the Columbia-Snake River complex that is now at taxpayers' expense.

Our railroads and those other members of The Association of American Railroads comprise 94% of the total railroad mileage in the United States, employ 92% of the railroad work force and carry 98% of the nation's rail or freight traffic. All members of the AAR in the country wholeheartedly support S. 810 which would make waterway users responsible for 100% of the construction, operating and maintenance costs attributable to commercial river traffic.

Union Pacific and Burlington Northern have watched rail traffic dry up along the Columbia-Snake complex as each lock and dam was opened. Both railroads have recently offered new volume rates on grain shipments from this area to attract traffic. We have tried many times in the past to meet barge rates and, for the most part, have not been able to regain what we consider our fair share of the traffic in this area for a number of reasons. For example, we find that grain traffic originating within approximately 100 miles of the river is being trucked (depending on the conditions of the roads) to river-terminal elevators for shipment to lower Columbia River ports of Portland, Vancouver, Kalama, Longview, and Astoria. This traffic has not paid its way on the river. Grain and other bulk barge traffic has been exempt from I.C.C. rate regulations and moves pursuant to private contracts rather than under published tariffs. Because barge rates are exempt, barge owners are not required to prove to what extent their rates cover cost of operations. For the most part, the rates are negotiated at levels sufficiently below published rail rates to gain the traffic. It has been our experience on the Columbia-Snake River system that whenever railroads publish reduced rates with the Interstate Commerce Commission, barge lines have undercut them just enough to retain the traffic. If full user charges were imposed on barge lines, railroads could compete for the business based on forces in the free market place. As it stands now, barge rates are set under the umbrella of the rail rates and unless there is a shortage of barges or the locks are closed for maintenance, railroads have very little opportunity to move much of this traffic. This is not to say, however, that the movement is being made in the most economical fashion.

Grain (primarily wheat) has always been the major export through Pacific Northwest ports including white wheat from the Pacific Northwest and hard red winter and hard red spring wheat from the Montana-North Dakota area which moves to Pacific Rim Countries. Grain exports have increased dramatically in recent years; from 310 million bushels for crop) 1976-77 to an anticipated 800 million bushels for the crop year 1980-81. Prior to 1977, wheat and barley represented most all of the grain exports through the Pacific Northwest ports.

In late 1977, feed grains, primarily corn and milo, started moving through Puget Sound ports because of the energy situation, strong marketing programs by Pacific Northwest railroads, congestion at gulf ports, uncertainty about the Panama Canal, and explosions of several Gulf Port elevators. Feed grains now represent approximately one-third of Pacific Northwest grain exports and move almost entirely by rail in grain unit trains.

In contrast, almost all Pacific Northwest wheat exports have shifted to Columbia River ports. During the 1980-81 crop year, U.S.D.A. reports that just over 195 million bushels of wheat were barged on the Columbia-Snake Waterway. Of this, approximately 30 million bushels were from Montana, accounting for 900,000 tons or the equivalent of 9,000-10,000 covered hopper cars per year which could have generated $27 million to $30 million in revenues to railroads. This grain was trucked to upper-Columbia River ports, primarily Lewiston, Idaho--some as much as 400 miles over land.

Barge lines are quick to point out energy efficiency. In the November 1980 issue of "Farmline", the U.S.D.A. indicated the number of miles one ton is moved on one gallon of diesel fuel for barges to be 333; railroads 200; and trucks 56. When waterway circuitry is taken into consideration, rail and barge fuel efficiency is often identical. Further, railroads are now experiencing fuel efficiency of 300 miles per ton on a gallon of diesel in unit train operations. Barges are efficient if the commodity originates and terminates near the river and the river flows in the direct line. By comparison, truck-barge efficiency drops to 84 miles per ton/gallon on grain and other hauls where 700 miles of truck movement is involved. Under such circumstances, the truck-barge combination obviously turns into an energy extravagant movement. Dr. Kenneth Cassavant, Assistant Professor of Agricultural Economics at Washington State University, concluded that rail transportation is less energy intensive than truck-barge movements of grain except at points near the waterway. Other studies show that approximately 37% of the wheat moving on the Columbia-Snake Waterway is grown in the Eastern Oregon and Washington - Palouse country in counties adjacent to the rivers. A good part of the balance is grown outside of this area and from an energy standpoint moves in a less effective mode of transportion when it moves by truck-barge.

Prior to 1970 the bulk of all woodchips moving between inland areas of Oregon, Idaho and Washington and the Coast was handled by rail carriers. There are now truck-barge reload facilities located at both The Dalles, Oregon, and Lewiston, Idaho, with another planned in the Umatilla, Oregon area. Much of the traffic formerly handled by rail carriers will be diverted to truck-barge movement due to rail carriers' inability to meet the barge rates which are subsidized by the free use of the waterways.

Container facilities have now been constructed at terminals on both the Columbia and Snake Rivers which are now handling much of the export movement of pulpwood, wood pulp, dried beans, peas and lentils, alfalfa pellets, and other commodities which formerly all moved via rail. We estimate an annual movement of 100,000 tons or 1,600 carloads of export pulpboard has now been diverted from rail to truck-barge because rail carriers no longer can compete against subsidized barge movements for this traffic.

Diversion of all this traffic from the established rail carriers places a heavier burden on the remaining available traffic. Maintenance of sufficient revenues to justify continued operation of the numerous branch lines located in the geographical area of the Columbia-Snake River basins will be increasingly difficult and these operations are jeopardized by the continued erosion of this traffic.

3 United States Department of Transportation reports show that federal aid to domestic waterways has exceeded $14.6 billion while federal aid to domestic railroads has amounted to $1.8 billion. In addition, local port authorities along the Columbia-Snake Waterway have subsidized barge use of the rivers by using their bonding and taxing authority to build facilities at public expense for movement of water shipments. This, of course, takes resources from the public at large and traffic from existing modes such as truck and rail.

What groups pay for or gain from government subsidies of our inland waterway systems? Clearly, the general taxpayer pays the full price by providing locks, dams, and dredging free, except for the recent 4-cent per gallon user charge. There is no guarantee that waterway shippers receive lower transportation charges. Grain tonnage moving via barge on the Columbia-Snake system, for example, is sold at a price based on published rail rates between upriver elevators and ports. The part of the river subsidy not kept by barge owners is often totally absorbed by grain terminals and grain marketing firms who deduct the quoted rail rate from remittances to farmers. Seldom do farmers, who themselves are general taxpayers, reap benefits of the subsidies we all pay.

At the same time, with their current advantage, subsidized barges threaten the extermination of rail feeder lines serving grain growing areas. If rail branch lines are forced to close, truck-barge movements will monopolize grain transportation, effectively dictating freight rates. They will have gained this advantage after operating for years with artificially supported rates because of waterway subsidies. The farmer and the general taxpayer clearly stand to be the long-term losers if full user charges are not imposed and all modes of transportation given an equal chance to compete.

We recently became aware of S. 1586 which Senator Hatfield has offered as an alternative to the Administration Bills on user charges (S. 809 and S. 810). In the time we have had to review S. 1586, it appears to have a number of significant deficiencies. First, I understand it imposes what amounts to a tariff charge on imports and exports, contrary to a number of treaties. Second, and perhaps more significant, it attempts to have all freight moved to and from ports by all modes of transportation assessed deep draft and inland shallow draft charges. In other words, freight moving to and from ports via railroads and truck lines would be required to bear part of the tax burden for the competing inland waterway system. Finally, the bill allocates to the local taxpayer, not the waterway user, part of the funding for desired channel and navigation improvements. In our view, the approach taken by the Reagan Administration is far superior as it places squarely on the shoulders of those using the waterways the responsibility for paying construction, operation and maintenance costs without spreading this burden to local taxpayers or freight moving on competing modes of transportation.

In recent weeks there has been an increasing crescendo of opposition from water interests to the Reagan Administration's plan for full reimbursement of federal construction, operation and maintenance costs for inland waterways. S. 810 properly addresses inequities which have existed for years between barges and railroads that allow competition on the basis of subsidy rather than on the basis of market forces and the inherent advantage of each mode. It is truly the American taxpayer who has been forced to provide barge subsidies, and it will be this same taxpayer who will be forced to support further subsidies to Conrail and to other segments of the national rail system if inequities continue. Lower transportation rates to a select group of shippers due to government subsidies come about only because other taxpayers are absorbing facility costs which the barge line does not have to factor into its rates. Users of the waterways, themselves, benefit from the facilities and they, not the general taxpayer, should be responsible for that portion of the construction and upkeep that is attributable to their use. that reason, we as competitors and taxpayers wholeheartedly support S. 810.

I would also like to place on the record a summary of railroad participation in the Bonneville Lock enlargement proposal which the Corps of Engineers recommended at a public capital outlay of over $150 million. This project was the subject of public hearings in the mid 1970s and a feasibility study forwarded by the Corps of Engineers through channels to the Secretary of the Army. Railroads in this area were the only protestants. Union Pacific and Burlington Northern together with the Milwaukee Railroad retained the firm of URS/Coverdale and Colpitts which produced a critique of the Corps' feasibility report objecting to the reliance on inadequate traffic estimates, a deflated cost of capital, inadequate analysis of potential bank instability beneath Union Pacific lines and a number of other questionable premises. We have found that the Corps has a somewhat biased enthusiasm for any project that perpetuates its existence. The Corps' enthusiasm for the Bonneville Lock enlargement was not, however, shared by the Secretary of the Army.

In a memorandum for the Chief of Engineers (copy attached), the Assistant Secretary of the Army for Civil Works, Mr. Michael Blumenfeld, found the Corps' feasibility study (1) was "... neither economically sound nor sufficiently comprehensive. Opportunities for more effective use of the existing facility - through congestion fees or other rationing devices - are ignored", (2) relied improperly on short-haul (150 miles or less) sand and gravel traffic that would overtax the Bonneville navigation locks, and (3) should consider the benefits of diverting this and other traffic to other modes by congestion fees or other rationing mechanisms. The Secretary of the Army's objections point out that the situation at Bonneville was not unique and that congestion per se is not enough to justify any federally funded project. Assistant Secretary Blumenfeld found:

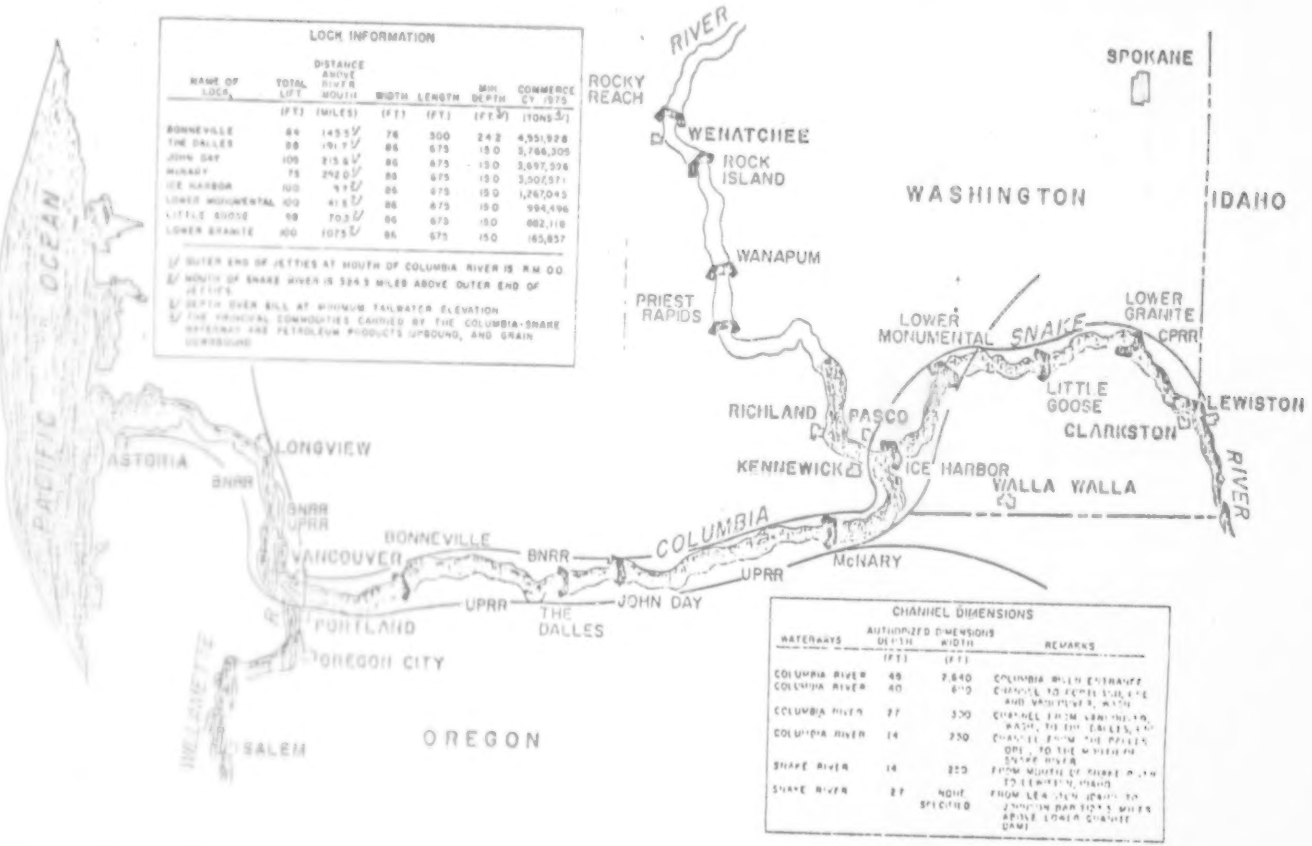
> ".... Waterways can be cluttered with marginally - benefiting users who, on the one hand, impose large delay costs on all shippers but, on the other, do not themselves receive large enough savings to justify the costs of constructing new or enlarged locks. Reports recommending construction to expand lock capacity must therefore include thorough consideration of alternative, less ambitious measures which can enhance dramatically the economic value of the existing waterway facility by eliminating congestion."

Thus, the Secretary of the Army, in our view, correctly admonished the Corps to obtain full use of its existing facilities before committing $150 million or more to a project which will not enhance the economy of the area. In the railroads' critique of the original feasibility study, we suggested that waterway users voluntarily coordinate dispatchi[illegible]o ensure that barge tows are not arriving at the same locks at the same time. Railroads regularly coordinate use of joint railroad facilities and this allows the capacity of one or two tracks to be magnified many times. As competitors and taxpayers, we can see no justification for building an expanded lock facility.

The Corps of Engineers has now developed a Feasibility Study Addendum dated January 1981 which the railroads are again reviewing in detail. There are many areas of concern which continue in the Corps' new report including the (1) highly speculative traffic estimates which rely on projections 60 years in the future; (2) assertions that certain movements via pipeline will drastically diminish when, in fact, new pipelines are being built in the area; (3) complete failure to analyze the lack of stability along the Union Pacific side of the Columbia which could cause significant damage to the roadbed and track; and (4) use of unreasonably low cost of capital (6-3/8%) in determining benefit/cost rates when government borrowings range well above 15% on the current money market. We intend to have a further critique completed and will be glad to make copies available to this committee and the public.

Thank you for the opportunity to appear before this hearing, I am prepared to respond to questions.

COLUMBIA-SNAKE RIVER NAVIGATION SYSTEM


RIVER
ROCKY REACH
WENATCHEE
ROCK ISLAND
WANAPUM
PRIEST RAPIDS
SPOKANE
WASHINGTON
IDAHO
LOWER GRANITE
CPRR
LOWER MONUMENTAL
SNAKE
LITTLE GOOSE
LEWISTON
CLARKSTON
RIVER
RICHLAND
PASCO
KENNEWICK
ICE HARBOR
WALLA WALLA
COLUMBIA
McNARY
UPRR
BNRR
JOHN DAY
THE DALLES
BONNEVILLE
UPRR
VANCOUVER
PORTLAND
OREGON CITY
BNRR
UPRR
LONGVIEW
BNRR
ASTORIA
PACIFIC OCEAN
WILLAMETTE
SALEM
OREGON

LOCK INFORMATION

NAME OF LOCK	TOTAL LIFT	DISTANCE ABOVE RIVER MOUTH	WIDTH	LENGTH	MIN DEPTH	COMMERCE CY 1975
	(FT)	(MILES)	(FT)	(FT)	(FT 3/)	(TONS 4/)
BONNEVILLE	64	145.5 1/	76	500	24.2	4,551,928
THE DALLES	88	191.7 1/	86	675	15.0	3,766,305
JOHN DAY	105	215.6 1/	86	675	15.0	3,697,996
McNARY	75	292.0 1/	86	675	15.0	3,507,571
ICE HARBOR	100	9.7 2/	86	675	15.0	1,267,045
LOWER MONUMENTAL	100	41.6 2/	86	675	15.0	994,496
LITTLE GOOSE	98	70.3 2/	86	675	15.0	882,110
LOWER GRANITE	100	107.5 2/	86	675	15.0	165,857

1/ OUTER END OF JETTIES AT MOUTH OF COLUMBIA RIVER IS R.M. 0.0

2/ MOUTH OF SNAKE RIVER IS 324.5 MILES ABOVE OUTER END OF JETTIES.

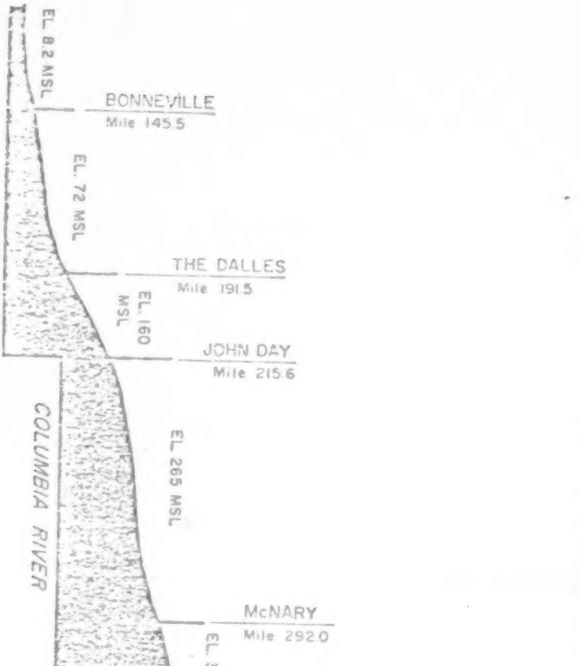
3/ DEPTH OVER SILL AT MINIMUM TAILWATER ELEVATION

4/ THE PRINCIPAL COMMODITIES CARRIED BY THE COLUMBIA-SNAKE WATERWAY ARE PETROLEUM PRODUCTS UPBOUND, AND GRAIN DOWNBOUND.

CHANNEL DIMENSIONS

WATERWAYS	AUTHORIZED DIMENSIONS DEPTH	WIDTH	REMARKS
	(FT)	(FT)	
COLUMBIA RIVER	48	2,640	COLUMBIA RIVER ENTRANCE
COLUMBIA RIVER	40	600	CHANNEL TO PORTLAND, ORE. AND VANCOUVER, WASH.
COLUMBIA RIVER	27	300	CHANNEL FROM VANCOUVER, WASH., TO THE DALLES, ORE.
COLUMBIA RIVER	14	250	CHANNEL FROM THE DALLES, ORE., TO THE MOUTH OF SNAKE RIVER
SNAKE RIVER	14	250	FROM MOUTH OF SNAKE RIVER TO LEWISTON, IDAHO
SNAKE RIVER	27	NONE SPECIFIED	FROM LEWISTON, IDAHO TO JOHNSON BAR [illegible] MILES ABOVE LOWER GRANITE DAM

Exhibit "A"
Page 2 of 2


EL. 8.2 MSL
BONNEVILLE
Mile 145.5
EL. 72 MSL
THE DALLES
Mile 191.5
EL. 160 MSL
JOHN DAY
Mile 215.6
EL. 265 MSL
COLUMBIA RIVER
McNARY
Mile 292.0
EL. 340 MSL
Mile 324.3
ICE HARBOR
Mile 9.7
EL. 440 MSL
LOWER MONUMENTAL
Mile 41.6
EL. 540 MSL
SNAKE RIVER
LITTLE GOOSE
Mile 70.3
EL. 638 MSL
LOWER GRANITE
Mile 107.5
EL. 738 MSL

COLUMBIA-SNAKE RIVER INLAND WATERWAY PROFILE

MEMORANDUM FOR THE CHIEF OF ENGINEERS

SUBJECT: Bonneville Lock and Dam, Oregon and Washington

Based upon my review of this request, and despite subsequent discussions with the Director of Civil Works, I cannot accept the conclusion that a new 86' by 675' lock at Bonneville costing about $134 million is the best plan at this time for responding to traffic growth at this facility. The analysis on which you have based your recommendation is neither economically sound nor sufficiently comprehensive. Opportunities for more effective use of the existing facility--through congestion fees or other rationing devices--are ignored. As a result, the economic solution to projected navigation problems at Bonneville apparently has not been identified. Accordingly, I am returning the report for further consideration of these deficiencies. In addition, I have attached other comments which need to be addressed prior to resubmission of your report.

The report shows that all traffic through the year 2040 can be handled by the existing lock except for the Portland area-Dalles pool sand and gravel traffic which is projected to be initiated sometime between 1980 and 1990. These sand and gravel movements will enjoy smaller rate savings by use of the waterway than will any of the other commodities. At the same time, they will impose large delay costs on the other waterway shippers. Indeed, these costs will far exceed the net benefit in rate savings enjoyed by the sand and gravel shippers; yet these costs will not be taken into account by the sand and gravel shippers in choosing to use the waterway.

Diversion from the waterway of this new, low-benefit sand and gravel traffic to an alternative transportation mode, by a congestion fee or other rationing mechanism, would reduce traffic growth and associated congestion costs, thereby deferring into the future the need for a new lock. Of course, should traffic projections of grain and other high-benefit commodities increase at a faster rate than shown in the report, elimination of traffic-limiting measures and construction of a new lock may be justified earlier than the 2020-2040 time period indicated by available data.

The situation at Bonneville is not unique. Many navigation facilities are becoming congested. However, the mere occurrence of congestion is not a sufficient reason for costruction of new locks or costly modifications. Waterways can be cluttered with marginally-benefiting users who, on the one hand, impose large delay costs on all shippers but, on the other hand, do not themselves receive large enough savings to justify the costs of constructing new or enlarged locks. Reports recommending construction to expand lock capacity must therefore include thorough consideration of alternative, less ambitious measures which can enhance dramatically the economic value of the existing waterway facilities by eliminating congestion.

Recommendations regarding authorization (if necessary) and implementation of traffic management initiatives at Bonneville must be based on sound theoretical concepts and substantial public participation to assist in translating such initiatives into implementable measures. To this end, I would expect you to obtain input from the waterway users, alternative transportation systems, the environmental community, the concerned Federal agencies, State and local governments.

I am concerned that all reports reflect a thorough consideration of all cost effective and environmentally sound measures which can be implemented to delay the time when expensive, environmentally damaging construction will have to be undertaken. Unless these kinds of measures are adequately described and assessed, a recommended construction authorization is likely to face the same protracted delay before implementation we experienced with Lock and Dam 26, even when, as there, new construction turns out to be the best solution.

In our stewardship of the Nation's waterways, we are obliged to ensure that cost-effective and environmentally sensitive solutions to navigation problems are actively explored and described to the public and, ultimately, to the Congress even though they may be departures from past policies and practices. There is no question that this obligation long predates the December, 1979, P&S revisions and Manual. Let me stress in this regard that:

(a) My direction to explore carefully a congestion fee or other rationing devices makes clear that my interest is in assuring that we find the most economically efficient solution to projected congestion at the existing lock--not in pursuing through the means of this report a "user fee" related in any way to the cost of constructing/maintaining navigation facilities here or elsewhere.

(b) Completion of a "generic" study of congestion fees (or other specific rationing devices) need not be the predicate for such a study and recommendation in the specific case of Bonneville. The right device at Bonneville would be one that reflects the unique conditions of traffic patterns, seasonality, nature of projected incremental traffic, concentration or dispersion of users, and other such variables that are site specific. Also, while a "generic" study could provide helpful and uniform guidance for the mechanical aspects of fee collection or traffic rationing, procedures for Bonneville can be developed with enough flexibility for revision with experience.

(c) You have acknowledged that reports leaving Districts as of October 1, 1980 will and must consider congestion fees (among other non-structural measures). No "generic" study will have been completed by that time. Development of Corps guidance to Districts as to parameters of implementability ought, I would assume, to be underway right now if that guidance is necessary. There are real questions, which you have identified, that must be addressed in assessing the implementability of specific non-structural solutions, including congestion fees. But a measure cannot be judged "unimplementable" simply because Congress would have to--and might not--authorize its implementation. Districts must approach the real questions and tradeoffs that exist, assess industry/public reaction, and come to specific recommendations, within the guidance OCB may offer. This seems to me no less so with Bonneville than elsewhere.

(d) There would seem to be time to do the necessary work on the Bonneville report. The sand/gravel traffic which will strain lock capacity is not projected to emerge until later this decade. Indeed, according to data in the report, delaying completion of a new lock for several years would produce greater net economic benefits than completion in 1990 as proposed. Thus, the time required for additional study can only improve project economics regardless of whether a new lock or a rationing device is the better solution.

If traffic projections change, I assure you this office will be responsive to a new construction recommendation based on these new projections. Similarly, should Corps analysis demonstrate, as you believe it might, that the necessary administrative costs attendant to a congestion fee or similar device would reduce the apparent net benefits of that fee or device, I can assure you we will be responsive to that finding.

In short, I am not committed to the concept that a non-structural "rationing" device will be the best solution. I am committed to the concept that the taxpayer deserves better certainty than he now has that a $134 million investment in a new lock is a better one. If State/agency/industry/public input, and ultimate Congressional action, indicate that "rationing" lockage at Bonneville is politically unacceptable--and it may be--then let us at least have framed the alternative in the way that permits an informed choice. There is time to do so. The Corps has access to the analytic talent to do so. I cannot ask that you do less.

Michael Blumenfeld
Assistant Secretary of the Army
(Civil Works)

STATEMENT OF PETER J. BRIX
OF NORTHWEST INLAND WATERWAYS COMMITTEE
BEFORE
WATER RESOURCES SUBCOMMITTEE of the U.S. SENATE COMMITTEE ON ENVIRONMENT & PUBLIC WORKS

VANCOUVER, WASHINGTON, AUGUST 19, 1981

****

My name is Peter J. Brix and I am appearing here today as Chairman of the Northwest Inland Waterways Committee, and I am also President of Knappton Corporation of Portland, Oregon.

In speaking to you today, I am also representing - among others - Columbia Marine Lines, Tidewater Barge Company, Shaver Transport Company, Willamette Tug & Barge Company, Mirene Company, and Knappton Corporation.

Mr. Chairman, may I begin by expressing our thanks to you for bringing this subcommittee to the Northwest. We appreciate your interest in our concerns and we are grateful for this visible and productive opportunity to present our ideas to you.

We have come before you today in a sense of profound apprehension.

We speak for many in this region who foresee a crisis of major proportions if the Administration's proposed changes in waterways users fees are enacted.

Senate Bills 809 and 810 - in our opinion - could bring about the death of our industry; could set in motion an economic chain of events that would rock the Northwest economy to its foundation.

We are here today to ask you for time - time to gather all the testimony; time to complete all the studies; time to assess the inland waterways network as a single, unified system of transportation; time to find the equitable answer to the problem of cost-recovery.

We face here no small crisis. The crux of the issue is the survival of water traffic and port development on the Lower Columbia - and ramifications of this grave situation spread far beyond those industrial and geographical limits.

In our opinion, we are actually faced with the possibility of an absolute close-down of water-borne commerce on the Columbia/Snake waterway system that would affect all modes of transportation, not only the barge lines.

The barge and towing industry supports President Reagan's economic recovery program to bring inflation and government spending under control - but we have grave reservations about the specific proposals now under consideration. Implementing dramatic new user charges at this time and in this fashion, as outlined in David Stockman's proposal, would stagger the economy of the entire Northwest region.

We see pending - in this proposed method of underwriting the costs of waterway operations - a potentially devastating disruption of established economic patterns.

We foresee the possibility that healthy competitive factors would be so disrupted as to bring an end to barge traffic on the Columbia/Snake system, while delivering to other forms of transportation a prize of great and unwarranted dimension.

We agree that the federal budget should be reduced and we also approve of the concept that federal subsidies to private business should be eliminated in order to make the marketplace equal for all parties in the give-and-take of normal commerce.

But the proposals as outlined for the Administration by David Stockman will not achieve these goals fairly or successfully. A system that is working now would be ripped apart; established economic patterns would be destroyed; essential elements of the competitive pattern would be killed - and all for forecast benefits that are far from clear.

We need more time. We need more study. This is not the way.

Waterway user charges are an issue relating to national transportation policy - since the federal government has given and continues to give the support of federal funding subsidies to all of the nation's transportation modes.

By making waterway user charges a part of the Administration's economic recovery program, a disturbing array of cost-recovery plans have hastily appeared. These risky experiments pose a genuine threat to the long-term economy and undermine the goals of national transportation policy - specifically, balance and equitable relationship among the surface transportation modes.

It is unfair and unwise to single out the barge and towing segment for special penalty.

Testimony before your subcommittee by the American Waterways Operators, Inc., last June summarized this inequity very well and bears repeating:

"Congress enacted user taxes for the inland waterways in 1978 with the passage of P.L. 95-502, and its Inland Waterways Revenue Act Title. Under this law, a tax was placed on diesel fuel used for commercial navigation on 26 segments of U.S. inland and intracoastal waterways. The tax began at a rate of 4¢ per gallon on October 1, 1980, and is scheduled to increase in increments to 10¢ per gallon in 1985.

"Congress, unsure of the effects such taxes would have on the nation's transportation system, mandated a comprehensive study to determine their impact. The Departments of Commerce and Transportation and other agencies are in the final stages of three years of work on this study, which is scheduled to be delivered to Congress by this September 30.

"Ironically, Mr. Chairman, you are now being asked to adopt and implement new user fees prior to completion of the study you mandated."

We are uniting our voices, throughout the inland waterways transportation system and the ports it serves, to ask for a deferral of action of the bills now before you that seek radical changes in waterway users fee assessment.

We feel no action should be taken until completion and review of the Inland Waterways User Tax Impact Study.

And a part of the assessment of impact must also include a long-overdue study of federal subsidies of all kinds to all modes of transportation.

I agree with Senator Max Baucus regarding this issue when he urged that the Administration lend its support to appropriate fact-finding by relevant government agencies to provide Congress the information needed to consider current transportation subsidy phase-out proposals in the context of past subsidies that may still be influencing the transportation marketplace.

There are other elements that must be considered when this impact is studied. The barge and towing industry plays an immense and valuable role in the nation's transportation system. Last year, it moved nearly 700 million tons of freight - almost two-thirds of all domestic waterborne traffic. This industry is involved in the lives and livelihoods of every American - and it provides a vital cog in the national defense.

Water transportation costs less and uses less energy than any other form of commercial transportation - and we pass along these savings to the consumers. Fuel efficiency - energy saving - is a key part of the picture. A recent study indicates that, on the average, barges can carry a ton of freight 514 miles on one gallon of fuel. Railroads can do the same for 202 miles and the truck figure is 59 miles.

These figures give the waterways high marks for energy efficiency and for good value in the transportation dollar. But they also point out the interdependence of all transportation modes. We are intertwined. We work together. We are one American system.

The idea behind the Administration proposals is simplistically stated as the "users pay the bill." And, without further examination, the idea might sound feasible. But we feel, in the overview, that the Administration plan would not be fair; would not take into account the wide range in beneficiaries of the waterways systems; would not generate the money necessary to maintain the quality of the present system; and would discourage the sense of unity which we need to encourage in this vital and complex transportation network.

We think - above all else - that the American waterway transportation system should be thought of as a single, unified, and essential resource. The deep-draft and the shallow-draft capabilities should be thought of as one manifold unit of our massive waterway traffic. We should seek to unify our system of waterways and treat the operation and maintenance of this unified system in a broad, coordinated, and equitable fashion.

Those I represent want me to register strongly this essential fact: we believe the Administration proposal - which hits us hard by assessing those who ship by barge with a higher barge fuel tax - would deal us a fatal blow. We know that imbalances would occur almost immediately between deep-draft and shallow-draft ports. We feel that barge traffic would slow dramatically, forcing fewer and fewer to pay more and more for the maintenance of this system. We are convinced that port traffic would shift from the United States to Canada and Mexico; that massive amounts of international commerce would be lost; that jobs and the general economy, in overwhelming margins, would be impacted; that, by a spreading decay of waterway facilities, our national defense would by sorely impaired.

In the face of present and immediate problems and in awareness of the challenges ahead, we feel this entire issue needs careful and widespread study - before we tamper with a method of operation and maintenance that we know to be workable and productive.

And it is our opinion that the concerns of our industry - voiced immediately from the point of first impact - will be shared by the general public when they become aware of what is happening. This is not merely an issue of concern for the barge and towing industry. As the American Waterways Operators testimony stated:

"The improved waterway system of the United States is a shared resource, serving not only commercial navigation, but environmental enhancement, flood protection, municipal and industrial water supplies, recreation, fish & wildlife enhancement, hydroelectric power generation, irrigation, national defense, facilitation of export expansion, and regional development."

A wound dealt to this part of the American body will be felt nationwide.

Current Administration proposals for a port-specific, river-segmented approach to waterway user charges adversely affects not only our segment of commerce - but a widely spreading circle of interdependent elements regionwide and nationwide.

The economic impact of this proposal would have a crippling effect on ports development and barge traffic in the Columbia/Snake system...and that paralysis would move quickly to shippers of all kinds, to farmers, to the forest products industry, and to the general job-holding, bill-paying public.

I would like to include two quotes which underscore this opinion:

Lloyd Anderson, Executive Director for the Port of Portland, has said: "There has never been a more serious and negative impact threatening the Port. One out of every ten jobs is affected by the system. This would have a paralytic effect on growth."

And Frank Dausz, a member of the Forwarders and Brokers Association who served on the Port of Portland Marine Terminals Master Plan Task Force, has said: "We want to get word out on this. People in this region should realize that this is more than a maritime issue; it's an international trade issue - and that affects everyone. If (the general public) thinks this would affect only those businesses directly involved with what goes on at the docks, then they have another think coming."

That's what we're proposing - careful second thoughts and considerable study. A more profitable, more equitable option can be developed.

A recent proposal made by Senator Mark Hatfield, for example, provides what we think is a reasonable and realistic alternative - if a change in the current Operation & Maintenance support must be made.

In Senator Hatfield's plan - surcharges would be levied on imports and exports in a uniform manner. To be based mostly on tonnage - with charges set by the Secretary of the Treasury on a weight and value basis - these broadly applied assessments, working uniformly throughout the nation's ports and waterways transportation systems, would raise an estimated $5.2 billion during the next ten years.

Because the Administration plan treats shallow-draft and deep-draft segments of the waterways system differently, inequities between U.S. ports would appear immediately.

Senator Hatfield has pointed out that the Administration proposals - two separate bills for the two separate systems - could cost the Lower Columbia River Ports as much as 35-cents a ton, because of the heavy costs of dredging the Columbia and Willamette Rivers; while the deep-draft ports would be paying as little as 3 cents a ton.

If the expenses of all construction proposed along the Columbia were thrown in - including solution of the two key problems I mentioned earlier - the Port of Portland could face a charge as high as $1.66 per ton.

Senator Hatfield has said that the Administration plan would violate the spirit of the Constitution - which requires that no port be given preference over another, and that duties and taxes be uniform throughout the country.

Senator Hatfield further states:

"The result of the Administration's proposal would be to slowly strangle international commerce through Columbia River ports and through similar ports nationwide."

Now, we add our voices to the many who foresee great danger in the Administration proposal. And we join the Northwest consensus which summarizes its position in this brief fashion:

Spokespersons for the Northwest ports and those who operate the Northwest waterways commerce agree that any transportation or port development legislation should be able to improve the nation's transportation system and to improve our position in world markets.

We agree that the standards and measurements for success of any such legislation should be these demanding testpoints: The legislation should:

- -- Maintain a viable, competitive transportation system.
- -- Minimize inflation, economic dislocation, and unnecessary increases in fuel consumption.
- -- Minimize the adverse impact on United States' competitiveness in world markets.
- -- Minimize shift of cargo to Canada or other foreign ports.
- -- Minimize disruption to the relative competitive position of ports.
- -- Recognize that the inland shallow-draft and deep-draft waterways together form a national transportation system, so that shallow-draft and deep-draft should be treated as one system.

In conclusion, may I say this:

We are seeking an equitable and workable system. Our industry has always demonstrated a spirit of cooperation and a great willingness to lend our strength to the national effort. We come to you, in this instance, with the same commitment to the national good.

But we feel very strongly about this issue - and we see the proposals under consideration as grave mistakes.

What the Administration plan for waterway user charges really does is simply to arrange for a different group of taxpayers to pay the costs of operating and maintaining the Columbia/Snake waterway system.

Under current procedures, all of the taxpayers share this burden, because the costs of maintenance are now paid for out of the general fund and executed through the Corps of Engineers.

Since all taxpayers benefit from the waterways systems, we feel it is fair that all share the costs.

But if the Administration plan is adopted, only those directly involved with the primary usage - at the first level in this chain of commerce - would be asked to shoulder the full burden. The farmers, the timber people...these are the economic groups that would be severely affected.

So the result would be what we feel is an inequity of the greatest proportion: the many who receive benefit from this great transportation system, this fruitful generator of economic health, would not be paying anything - while those who initiate the chain of economic benefit would have to pay the most.

This is an unfair proposal.

This is a proposal that will not work.

It will, instead, cripple a vital element of commerce, with reverberations affecting all of us.

If these radical changes in waterway user fees are adopted, we will have made a mistake that will certainly come back to haunt us in the years ahead.

Our request of you is simply this: please give the issue more extensive investigation. Wait for the Inland Waterways User Tax Impact Study. Examine all of the developing evidence. Listen to the rapidly expanding voices of concern. Allow for thorough deliberation before this radical change is put into effect.

What we have now works. What is proposed is in question.

We - just as you - want a plan that is reasonable and equitable and calculated to bring improvement and strength to this nation's great waterway transportation system.

We ask that you allow maximum time for the careful consideration of this complex and sensitive issue.

Portland Steamship Operators' Association, Inc.
200 S.W. Market St. • Suite 220
PORTLAND, OREGON 97201

Senator James Abdnor
Chairman Senate Water Resources Subcommittee
Washington, D.C.

WATERWAY USER CHARGES

Dear Senator Abdnor:

The members of the Portland Steamship Operators Association representing a group of twenty-seven owners presently using the Columbia River system, and involved with three states, ie Washington, Idaho and Oregon, are writing to urge you and the other members of your committee to exert the very maximum effort to effect consideration of alternatives to the administration proposals for full cost recovery waterway taxes.

While recognizing the administration objectives of raising additional revenues in a time of renewed fiscal responsibility, we submit that legislation affecting major transportation sytems must also take into account a much more broad range of objectives, not the least of which includes the maintenance of this region's position in world markets.

The Portland Steamship Operators support the effort of the Port of Portland, including their draft of proposed legislation, on cost recovery. The other Oregon ports, Washinton ports, including some from Puget Sound, Idaho ports, and those Columbia/Snake River ports, are in agreement with the draft legislation. This is also true of the Oregon Public Ports Association.

It is our view that the existing national navigation system, both deep draft and inland shallow-draft, must be approached as one system, ie all proposals on cost recovery should recognize that the deep-draft and inland shallow-draft waterways work together, and not as separate issues. User charges imposed on shallow draft will impact commerce not only on that portion of the waterway, but deep draft as well.

The proposal provides a uniform, nationwide, federally collected and administered mechanism to recover the costs of operation and maintenance expenditures of the Corps for navigation projects.

This proposal also calls for local areas to provide a local cost share in any new construction projects; while providing a mechanism for the local entity to raise the necessary funds which recognizes the need to permit reimbursement of the local share over the life of the project.

- It does raise a significent amount of revenue consistent with the Administration's objectives;

- It does preserve and maintain the existing navigation system, and follows through on the commitment and investments of the United States in promoting a national transportation system,
- It does force the development of priorities and real need assessment for projects by requiring local areas to collect locally and provide a local match to federal investments for new construction; and
- It does provide that the mechanism used will raise the revenues without the negative impact of diversion of cargo to foreign ports or causing severe dislocation of commodity movements between regions or between modes of transportation.

Additionally the proposal by the Port of Portland meets the basic objectives of the American Association of Port Authorities and offers several possible procedures for uniform federal user charges, including but not limited to:

- Expansion of current vessel tonnage taxes collected by the U.S. Customs Service.
- Allocations of customs receipts
- Flat tonnage rate on cargo
- Variable rate tonnage assessment on cargo scaled according to commodity types.

Should it be feasible to defer the administration proposals until further and thorough analysis of the full repercussions for increasing waterway user taxes, we recommend, as the Department of Commerce and Transportation are in the final stages of a three year study presently scheduled to be delivered to Congress in September of this year, that a deferral in implementation of a waterway user tax be made until the study has been submitted reviewed and commented on by affected parties.

Yours very truly,

Portland Steamship Operators Association

Vince C. Jackson

Captain Vince Jackson, President

cc: To All Committee Members

Any vessel now entering the U.S. from a foreign country pays a tonnage tax of $0.06 (USD (U.S. dollars) per NRT (net registered ton) but only until a total of $0.30 USD per NRT has been paid in one year, i.e., five entries of the same vessel from a foreign country in one year. From Canada and Mexico, the entry fee is only $0.02 USD per NRT.

For example, we have taken a typical 40,000 DWT (dead weight ton) vessel with a GRT (gross registered tons) of 23,980 and a NRT of 16,045, showing what it would pay in the U.S. and in a few other countries of the world.

U.S. 16045 NRT @ .06 = $ 962.00

Source of the following information is World Ports Directory by Ben of London:

Australia	Good for 3 months - Commonwealth Light Dues - .49 per NRT @ 16045 =	$ 7,862
	Good for 6 months - Conservancy Dues - 13.5 per GRT @ 23980 =	3,237
Japan	Y.364 per NRT per each port entered	2,880
England	L 2.08 per 10 ton unit of NRT 1604 x 4.00 =	6,416
France	Varies by type of cargo, but for bulk cargoes 4.5F per NRT per port, .81 x 16045 =	12,996
Belgium	10.15 F per GRT or .026 x 23980 =	6,235
Greece	.75DR x .0175 = .013 per cargo ton =	500
Canada	Harbor dues .05 per NRT each port x 16045	802
Bangaladesh	.80 per NRT per entry	12,836
India	12.75% freight tax outbound - $1,500,000 cargo, plus light dues	19,125

(Value of foreign currency was taken as of June 1, 1981 - this will fluctuate)

TESTIMONY OF

LLOYD ANDERSON, EXECUTIVE DIRECTOR

PORT OF PORTLAND, P.O. BOX 3529, PORTLAND, OREGON 97208

BEFORE

U.S. SENATE SUBCOMMITTEE ON WATER RESOURCES

FIELD HEARING

VANCOUVER, WASHINGTON

AUGUST 19, 1981

TESTIMONY OF
LLOYD ANDERSON, EXECUTIVE DIRECTOR
PORT OF PORTLAND, P.O. BOX 3529, PORTLAND, OREGON 97208
BEFORE
U.S. SENATE SUBCOMMITTEE ON WATER RESOURCES
FIELD HEARING
VANCOUVER, WASHINGTON

AUGUST 19, 1981

INTRODUCTION

I am Lloyd Anderson, Executive Director of the Port of Portland. Let me start by saying I appreciate the opportunity to appear again before the Senate Water Resources Subcommittee to testify on user charges/cost recovery legislation. I also want to express our appreciation of your including the West Coast and, in particular, the Columbia River as a site for one of your August field hearings.

Testifying on this panel with me are George Sellar, Assistant Manager for the Port of Chelan County, Wenatchee Washington; Dick Lawrence, Executive Director of the Port of Vancouver, Washington; and, Mel Shore, Director of the Port of Sacremento, California.

Following my comments, we'll proceed with comments from George, then Dick and conclude with remarks by Mel.

OTHER FIELD HEARINGS

From reports I've heard on your field hearings held to date, I would like to state that we share a number of concerns expressed at those hearings. Specifically, that:

- There are many unanswered questions and unknowns about the impacts and ramifications of user charge legislation on the various regions, area economies, and trade;

- o Lots of people, companies and regional industries will be hurt, crippled or very simply, put out of business and jobs, if the Administration's proposals on user charges are adopted;

- o Port specific user charges or segment charges will have a serious debilitating effect on area economies and will cause a warring between the states and between the haves and have-nots, the likes of which this country has not seen in a long time--making the current battle between the sunbelt and the frostbelt look mild; and

- o Will directly hurt the farmer and the agriculture community. Very simply, they are caught in a vise: their fertilizer and petroleum products are shipped upriver and the products and harvests come down the river to market; and they cannot pass the added costs along to the consumer, because many of their goods compete at the world market price, not at one set by the Chicago Board of Trade, David Stockman's testimony to you notwithstanding.

COLUMBIA-SNAKE RIVER CONCERNS

Probably more dramatically than on any other region, the user charge legislation pending before your Subcommittee will have a tremendous negative impact on existing development and the continued growth and development of the Columbia-Snake waterway as a major gateway for goods moving to/from world markets. In fact, we very clearly see and feel accurate in labeling the Administration's bills on user charges as the "Columbia River Closure" legislation.

The Columbia-Snake river system will be in double jeopardy, paying once for shallow-draft navigation (and understand, about 50 percent of the grain moving out of the Columbia River export elevators is transported by barge downriver), and once for deep-draft navigation. And our principal commodities are agricultural products and forest products. These are commodities least able to absorb additional costs to compete on the world market. In addition, these commodities come from sections of the economy most depressed when economic times are hard, as is the case now. And yet, these are the goods that have been a lifesaver to the country in terms of this country's balance of payments problem.

The Columbia-Snake river system best typifies the fact that there is a definite relationship between deep-draft and shallow-draft water. They need to be treated as one system of transportation. To view them separately may be convenient in terms of a political "divide and conquer" strategy, but it does not recognize the economic relationship and necessity that these systems operate in tandem. Without the shallow-draft system in place, the deep-draft lower Columbia would not be growing as rapidly as it is. Without the lower Columbia, the inland navigation would never have occurred. Moreover, much of the growth of increased regional production would not have occurred without the existing, all water route the Columbia-Snake provided these commodities.

And yet, it is important to recognize that the Columbia-Snake is a developing system. It is not like the Mississippi River system. Although the upper reaches of the Mississippi will be significantly and adversely impacted by imposition of user charges, one could speculate that the lower Mississippi, with its tremendous volumes, could absorb the small per ton increase that full cost recovery for that portion of the river would add to the cost of the good.

ARGUMENTS MADE IN SUPPORT OF USER CHARGE LEGISLATION

There are a number of arguments that are made on behalf of imposing user charges on the waterways. I would like to briefly go through several of those and offer some comments for your consideration.

The Market Test

According to its proponents, the market test is a means of identifying projects which cannot sustain full cost recovery. Failure to meet the market test supposedly provides a rationale for closure of certain segments, or all segments, of specific waterways.

There are several problems with the application of the market test concept to government projects:

- Waterway projects are developed as governmental multi-purpose projects. The benefit to cost ratios developed are normally for the entire project, not just the specific navigation use. Applying a navigation market test to a specific segment of a government multi-purpose project is a misleading endeavor. It will yield negative results because its use cannot be fairly applied to a government system where private industry has not provided funds to keep the waterways navigable.

- The Corps' accounting system has not traditionally allowed capturing of specific use costs for construction, operation and maintenance. Since the time the user charge issue surfaced, the costs attributed to navigation are estimated allocations, not true costs. Under this accounting system, a navigation market test will yield erroneous results because it uses construed numbers.

The Administration is promoting the marketplace test of user pays because it believes this concept promotes economic efficiency. Implicit in this concept is that as waterway efficiency occurs, the customer benefits from reduced costs.

In the Administration's view, the user is strictly defined as the direct beneficiary, namely the shipper or transportation company. This extremely narrow definition fails to recognize the beneficiaries are, in fact, the consumers. The shipper is but one entity in a complex chain of product marketing. If the user is strictly defined as the shipper or navigation firm, this means user charges enter the cost recovery cycle near the initial stages of product marketing. These costs are passed through from transporters, distributors, wholesalers and retailers to the consumer whether they are from the first user or whether they are imposed and collected as import surcharges or other forms of cargo taxes. The notion that import surcharges or other cargo taxes are not acceptable because they do not provide a marketplace test is a moot issue. As stated earlier, application of a true market test is not possible. Moreover, in either case, the consumer pays.

End Subsidies

There are those who would argue that the navigation program of the Corps is a subsidy and that this program should be ended. Discussions about subsidies usually center around the perception that someone is getting something for nothing and that subsidies are inherently wrong. The question is, who is benefitting and is there a public interest role? Let's take a look at the Northwest as an example. There is more dredging done on the Columbia River than on Puget Sound for the Port of Seattle. Yet, does that mean that this differential has put Seattle at a cost differential, in terms of its competition with the Port of Vancouver or the Port of Portland? As a result of the dredging on the Columbia, there have been no additional costs imposed on the Port of Seattle that are not found in Portland; nor has there been a direct cost of providing port services in both Seattle and Portland that no longer is charged in Portland.

I would argue that in terms of subsidy, the Corps dredging program has provided alternate gateways for America's goods to get to foreign markets and that the beneficiaries have been the U.S. consumer and the U.S. producer, not just the resident of the Portland area.

In fact, one could probably theorize that the existence of a viable port system on the Columbia strengthens the Pacific Northwest as a port region, in terms of attracting, maintaining and expanding steamship service and shipments to world markets. This includes strengthening the continued viability of Puget Sound ports.

Local Control/Local Cost Sharing

This concept suggests that the federal government has been providing the whole function. Yet, there are significant investments made by local entities, both public and private, in terms of shore side facilities as well as acting as local sponsor of federal navigation projects. Major investments have been made and continue to be planned to meet world market opportunities. The Port of Portland alone is looking at a projected $250 million marine terminal capital improvements program for the next 20 years.

I would also point out that the Oregon Customs District, which includes the southwest Washington river ports, continues to be a growth region. For January through March, 1981, this District collected over $42 million in customs duties and ranked 14th nationwide.

User Charges Should Be Tied to "Fast Tracking"

There are those who would support user charges if "fast tracking" is tied to them. We see this incentive as a sham, in that it appears as a code word for doing away with environmental requirements and other considerations. We don't believe this will occur. We do support improving the system and providing a timeframe and certainty of action, regardless of outcome.

No New Starts Without User Charges

This concept has been put forth by some proponents of user charges as the reason to accept user charges and full cost recovery. This approach blackmails the future of this country and is a policy which will force a failure to invest in facility improvements. Without continued investments in our transportation system over time we will stagnate and be forced into economic decline.

HATFIELD LEGISLATION

Because of the deep- and shallow-draft relationship we are supporting the legislation recently introduced by Senator Hatfield. It represents a viable alternative to the Administration's approach. Yet, his legislation does not say, there will be no user charges or there will not be funds raised to recover and pay for the costs of the navigation improvements. But it does say that it will be done on a basis that will not cripple developing systems, that will not cause economic dislocations between regions, that recognizes that we do have a national system of transportation--that should be funded on a national uniform basis, and that it does recognize that public policy should treat deep- and shallow-draft waterways together as one system, interrelated and operating in tandem.

SUMMARY

In closing, let me say we share the concerns expressed at other field hearings. We believe your field hearings will demonstrate the seriousness of the user charge issue.

Thank you.

TESTIMONY OF OTHERS

STATEMENT TO THE WATER RESOURCES SUBCOMMITTEE
UNITED STATES SENATE
AUGUST 19, 1981
VANCOUVER, WASHINGTON

Mr. Chairman, members of the Subcommittee, my name is Dick Lawrence, I am Executive Director of the Port of Vancouver, -- The FIRST Vancouver, but we think our neighbors in British Columbia have a fine city too. Our port is one of only eleven designated terminal ports on the entire West Coast - in fact, three of those eleven are on the Columbia River (Portland and Longview). I am also here today representing the thoughts and sentiments of the Ports of Longview, Kalama and Woodland, and indeed all the small ports whose future has, apparently, been consigned to legislative debate.

Senators, we very much appreciate this opportunity to testify about the proposed waterway user fees and cost recovery legislation. We are very appreciative that you selected Vancouver, original site of the Hudson's Bay Trading Company and the first "port of commerce" in the Pacific Northwest. We are, however, concerned, frustrated and angry that we are forced into the position of defending our existence and our efforts to develop the navigation system now in place through to Lewiston, Idaho. A system, I might add, that was only completed in 1978, and whose potential is just now being realized.

In the absence of any cohesive national transportation policy, we are here to testify about legislation that would cripple one of our nation's major waterway systems. In face of a national imperative to lessen our dependence on foreign oil, we are here to testify about legislation that would make the most efficient mode of transportation artificially (and unfairly) inefficient. In face of a growing demand for our agricultural commodities overseas - and the importance of a balance of trade - we are here to testify about legislation that would make our agricultural exports less competitive abroad, and that would squeeze all the farmers from Eastern Washington and Oregon, Idaho, Montana and North and South Dakota, to pay more for producing more - to pay more and make less, to be penalized for combining abundance of production with efficiency and cost effective transportation to our overseas markets.

This is not the "invisible hand of Adam Smith" at work, this is the unknowing pencil of untried insensitive theory. Senators, we earnestly hope that you and your colleagues abide by the philosophy of "If it ain't broke, don't fix it", for that is what we are here to tell you.

The fact is, the Columbia-Snake River ports are, to varying degrees, tied to the growth of commodities generated in the midwest, the west and our own "Inland Empire", just as we are tied to the growth, development and stability of the "Pacific Rim" nations. Which, by the way, surpassed Europe last year as our major trading partner! I would offer you the following points for consideration:

1. The operation and maintenance costs for the Columbia-Snake River System are approximately $13 million - $9 million for the deep draft portion, $4 million for the shallow-draft portion. Yet, customs receipts should be far in excess of $170 million this year alone.

2. If the Columbia-Snake River System can be said to pay its way, consider our small ports' local investments. In the last two months, the Port of Vancouver has committed over $50 million in terminal improvements, including a completely modernized grain elevator (to be constructed within two years) - our long range plan (5 to 7 years) could see another $70 to $100 million in construction. The Port of Kalama will soon have a $40 to $50 million grain elevator begin construction, the Port of Woodland has started processing permits for a $60 million grain elevator. Port of Longview anticipates investments of $60 million - and we are all optimistic that one or two coal terminals will locate on the Columbia in the next two years at an estimated $50 to $70 million each. (The Port of Kalama has just announced the signing of an agreement for a coal terminal.)

3. If it can be said that, in terms of jobs and payroll, taxes, commerce and industry generated, the Columbia-Snake River System gives the local, state and federal governments a substantial return on investment - consider also that the federal government does not truly pay the whole cost of operating and maintaining the system. The ports on the Columbia must provide disposal sites, easements and rights of way for maintenance dredging and maintain depths between the pierhead and channel at their costs.

The Columbia-Snake River System is a vital artery in our nation's waterway system, still developing in terms of trade and commerce, already paying its way many times over, but providing a critical link in the export of our agricultural commodities - and make no mistake - that is a very major function for this system. At the same time, the system provides hydro-electric power to the region, water for irrigation, opportunities for recreation.

How, then, does one identify the community of users and equitably determine their share of costs? For example, the John Day Dam was not necessary for navigation, it was built for power generation and navigation locks were a necessary consequence of its construction. Are we responsible for its maintenance or is some other group ... or has it paid for itself already in terms of power generated and distributed?

The fact is, the Pacific Northwest has only two major gateways to world markets, Puget Sound and the Columbia River; none of us recall an informed discussion on the policy and wisdom of arbitrarily closing one off. None of us, in fact, know what the policy on waterways is anymore.

For 156 years, the Federal Government has traditionally provided for navigation projects. Now, under the banner of "conservatism" and "free market" theory, a radical change may be wrought. We are told that MARAD is to be shifted into the Department of Transportation. Does this mean a submergence or emergence of our waterways systems as an integral and critical element in the development of a national transportation policy?

If you will allow me a brief observation, I would point out not only that the Federal Government helped develop the East, Gulf and Great Lakes port systems, but even here on the West Coast, certain deep water ports received tens of millions of dollars in Economic Development Administration Funds to spur and assist their growth. The smaller Columbia River deep water ports have relied almost entirely on local public and private investment to achieve their growth and development. Hundreds of millions of dollars have been invested and continue to be invested in public and private port facilities. Eight existing grain elevators in this area have or will modernize their facilities, two additional elevators are soon to begin construction, and two more elevators are in the planning stage.

Right now, rail and truck rates are lower in this region because the river system offers an efficient alternative route to market. It would be folly to think truck and rail rates would not be raised if waterborne transportation costs were forced up by this legislation. We all would pay more for the goods we buy - but in this case, it would be self-inflicted and not related to the actual costs of transportation and operations. The inter-relatedness of our regional and national economy and the international market place cannot be ignored.

The smaller ports on this system feel our continued existence is threatened, inspite of the hard work and risks we have taken to build it in partnership with the Federal Government. It is doubly difficult because we share and support your efforts and those of the Administration to curtail and lower the cost of government! However, the Administration's proposal is not the way to do it!

Facts and figures have been presented to you, and I would hope they prove persuasive. We beseech you to urge the Administration and Congress to wait - to get a much fuller appreciation of the consequences before passing any cost recovery legislation. We support and commend to you for study the legislation introduced by Senator Hatfield on August 3rd (S.B. 1586), The Waterways Transportation and Development Act of 1981. We feel this bill offers a constructive and thoughtful alternative to the Administration's proposal for imposing full cost recovery on the waterways on a port specific or segment basis.

The philosophy I represent to you today and the philosophy represented in that bill is the philosophy upon which our maritime nation was based and prospered: that it is the role of the federal government to maintain and operate our nations waterways systems. On this basis, we can survive and chart our future growth and development, not simply as individual ports, but as partners in an overall transportation system; a systemwhose vitality springs from that federal role in conjunction with local initiative.

Gentlemen, again I express our gratitude for this opportunity to present our views and we express our conviction that your deliberations and conclusions will reflect the best interests of our nation. Thank you!

TESTIMONY

BEFORE

SENATE ENVIRONMENT & PUBLIC WORKS COMMITTEE

SUB-COMMITTEE ON WATER RESOURCES

AUGUST 19, 1981

VANCOUVER, WASHINGTON

by

Melvin Shore, Port Director

Port of Sacramento

on behalf of

U.S. PORT SYSTEM ADVOCATES

(Ports listed on next page)

PORTS OF:

- ANACORTES, WASHINGTON
- BURNS HARBOR, INDIANA
- CANAVERAL, FLORIDA
- CHICAGO, ILLINOIS
- CLEVELAND, OHIO
- DELAWARE RIVER, NEW JERSEY
- DULUTH, MINNESOTA
- ERIE, PENNSYLVANIA
- GEORGIA AUTHORITY
    - Brunswick
    - Savannah
- GRAYS HARBOR, WASHINGTON
- GULFPORT, MISSISSIPPI
- ILLINOIS
- JACKSONVILLE, FLORIDA
- LORAIN, OHIO
- MIAMI, FLORIDA
- MILWAUKEE, WISCONSIN
- NORTH CAROLINA
    - Morehead City
    - Wilmington
- OLYMPIA, WASHINGTON
- PALM BEACH, FLORIDA
- PANAMA CITY, FLORIDA
- PENSACOLA, FLORIDA
- PORT EVERGLADES, FLORIDA
- PORT MANATEE, FLORIDA
- PORTLAND, OREGON
- REDWOOD CITY, CALIFORNIA
- RICHMOND, CALIFORNIA
- SACRAMENTO, CALIFORNIA
- SOUTH CAROLINA
    - Charlestown
    - Georgetown
    - Port Royal
- SUPERIOR, WISCONSIN
- TAMPA, FLORIDA
- TOLEDO, OHIO

REPRESENTATION

Thank you, Mr. Chairman, for the opportunity to appear before your Honorable Committee to present testimony on the subject of cost recovery/user charges for dredging work in connection with the seaports of the United States. As you will note this testimony is presented on behalf of a large number of ports from the various areas of the country. For a variety of reasons, our recruiting effort for this position, was started late. Additional ports are adding their names to the list at this time. With your permission, Mr. Chairman, I would be happy to furnish your Committee with the names of those additional ports that join the list. I am satisfied that the list will represent by far the majority of the ports of the United States, although unfortunately I cannot suggest that it will be unanimous.

POSITION PAPER

Attached hereto you will find the position being fostered by this coalition. I would call your attention first to the objectives, set forth in paragraph I. These objectives are extracted verbatim from the position of the American Association of Port Authorities. They represent, I believe, the unanimous opinion of all the ports of the United States. They certainly are the foundation of the position set forth in the attached paper.

HOW PORT DEVELOPMENT IS PERCEIVED

For many years, those of us professionally involved in the port industry have felt that there was a lack of appreciation of the industry. Now we are indeed blessed with a great deal of attention. I know, Mr. Chairman, that you and your colleagues in the Congress have long recognized the importance of ports to the international trade of this country as well as to its defense. On August 3, 1981, Senator Hatfield introduced S. 1586. Included in his bill as one of the "findings" is Section 101(b) which states:

> "Development.... of the national system of transportation.... has been accomplished through a productive partnership of the federal government, state and local public ports and municipalities...."

We applaud this recognition of the fact that our ports represent a PARTNERSHIP. Elsewhere, we are finding those who look upon the federal share as the dispensation of some sort of largess. I submit, Mr. Chairman, that the international commerce of this nation is a matter of federal concern. The Constitution makes that clear enough in several ways. How else would the ports be developed except by this partnership? Would we have a total system of federally built and operated ports? I think not! Not only would that be inefficient but the mere funding would obviously be beyond what the federal government would undertake. I think it is safe to say this, since the funding of only the dredging portion of the total port development has been inadequate. I am told, that the federal government has expended slightly in excess of $4 billion on all deep water port development since its beginning in the 18th century. Yet local ports will have invested approximately $5.5 billion in facilities from 1973 to 1983 alone.

Obviously, the viable port system includes water and landside developments. Both are essential and they have been provided by this federal/local PARTNERSHIP. The federal share is not a subsidy, it is not some largess to assist the local people - it is the investment of all the citizenry of the United States to make possible the international commerce of this country. It is to serve the interests of the shippers/receivers of goods from the landlocked states as well as to serve their defense needs for cargo handling.

COST SHARING

The concept of cost sharing, I believe, grew up in relation to a variety of water projects, e.g. hydro-electric dams, flood control, irrigation, etc. Each of these kinds of projects had a national benefit, but obviously their prime focus was for the state or local area. It seemed prudent, I suppose, that since the local people would benefit, that they put up their "earnest money" in the form of cost sharing. Then, the federal government would fund its share of the total benefit.

Because of the way dredging work is considered by both the Congress and the Administration, port/harbor dredging became just another water resources project. In reality, ports/harbors are really international commerce projects. The cost sharing concept is inappropriate since the non-federal share is not related to a local benefit.

Even if the concept must be considered, wherein is the logic in dismissing the most significant investment - the cargo handling facilities - and merely talking in terms of cost sharing the dredging? It may be convenient for the federal treasury to use that approach but it is neither logical nor in keeping with the fact that it takes the combination of dredging and cargo handling facilities to do the job of handling our international trade and to meet the cargo handling requirements during a defense emergency. Recognition of this latter point by the federal government is made clear by past and proposed take-over of the cargo handling facilities during a defense situation.

ADMINISTRATION PROPOSAL

The Administration's proposal, S.809, I believe, Mr. Chairman, has two distinct features to it. The first, is the economic necessity, as they see it, for cutting federal expenditures. The second, and distinct from the first, is the application of the market-place test.

We can sympathize with the Administration's position on the first item. We have too long, seen inadequate funding levels for the required dredging work. These efforts have not kept pace with the requirements. That experience alone would dictate that additional funding sources be sought. How those funding sources are approached becomes all important. The second part - the market place test - as envisioned by the Administration's position would spell disaster for the system of ports that are in place now in the United States. We do not suggest that the imposition of the program would spell disaster immediately. Rather, an understanding of the dynamics of port operations tells us from our experience, that there will be a gradual eroding of the opportunities for a majority of the ports of this country to remain economically viable.

We believe it will be inevitable that those ports that happen to enjoy naturally deep water (there are very few of them) or those in which the federal government has already made the investment in dredging will enjoy a competitive advantage and accordingly will grow at the expense of the rest of the system. A uniformly applied, federally collected charge such as we recommend would avoid these dislocations. As disaster strikes some of these ports, consider if you will the effect upon the local investments and the bonded indebtedness borne by these local bodies. These were investments made in good faith based upon the PARTERNSHIP principle previously enumerated.

COMPETITIVE PORT SYSTEM

The United States Port System has thrived not only because of the federal investment in dredging, but probably even more because of the competitive port system. This competition has fostered innovation, local investment, significant marketing efforts overseas, etc. The suggestion has been made that if the market-place test does not justify dredging, then perhaps the port should close. Obviously, how the market-place test is structured has a significant bearing on the ability to meet the test. Suffice it to say that the market-place test is faced by the ports in their daily operations. Their success in facing the market-place test is not based upon the "largess" of the federal government but rather on the dynamics of running a port.

UNIFORM USER CHARGE

It will be noted that the Position Paper attached recommends a federally imposed, uniformly applied user charge, if and when and to the extent necessary to adequately fund the required dredging program. The effects upon our international trade, diversions of cargo, etc. have not been subjected to study. Accordingly we are recommending that the study be assigned to a task force for an early report and that the charges then be fixed by Congress. Further, we believe such charges should be reviewed to keep up with changing technologies as well as the changing economy. Such an application should apply to the national system. i.e. channels/harbors of 45 foot draft or less. My information is that over 85% of our commerce moves in such channels/ harbors now.

SPECIAL REQUIREMENTS

There is some need for special dredging requirements for certain cargoes, as opposed to the vast majority of our international trade. Those requirements should be met separately from the needs of the vast majority of our commerce. With no significant investment in place at this time, these requirements can be subjected to the market-place test. Dredging and maintenance of channels/harbors over 45 foot draft is considerably more expensive than the shallower requirements and would serve to distort the entire funding mechanism if they were not segregated. We believe that a ship drawing for example, 37 feet (or its cargo) should not pay for the dredging beyond 45 feet. Nor should the ship drawing 55 feet pay for the dredging of the 45 foot channels.

PROCEDURAL CHANGES

At the present time it takes an average of 25 years from the beginning of studies to completion of a dredging project. Since studies cannot really be undertaken until the need can be demonstrated, the quarter of a century delay in achieving the desired results is completely unacceptable.

Some of this delay has been occasioned by inadequate funding levels. We believe our recommendations for funding procedures can alleviate that part of the problem. The remaining delays apparently are occasioned by environmental excesses. Some are occasioned by judicial procedures including those that have served to intimidate agencies in their review process. We believe it is long past time for Congress to speak out clearly against these excesses and legislate them out of existence. Please note that we are not opposed to meeting the legitimate requirements for environmental concerns. We believe that is all Congress intended when it enacted the original legislation. Because of its direct effect on the ports, we believe special consideration may be justified while Congress considers the broader problems in our society engendered by these delaying processes.

S.1586 (HATFIELD)

Mr. Chairman, we would comment favorably upon Mr. Hatfield's efforts in the referenced bill. The bill incorporates many of the principals encompassed by the attached Position Paper. We believe that with some perfecting amendments, which we hope to discuss with Mr. Hatfield, it can become the bill that will accomplish the objectives of the majority, if not all, the ports of the United States. Clearly, the most important of these objectives must be to retain and foster a viable United States Port System.

# # #

MS/mmg/ns
Attach: Position Paper

July 21, 1981

U.S. PORT SYSTEM ADVOCATES

Position Summary

re

Cost Recovery/User Charges

I OBJECTIVES

A. PORT SYSTEM - respect in-place port system which is operating productively and which represents major investments by constituents of local and state port entities.

B. PROCEDURES - incorporate meaningful reforms in procedures for authorization and funding of federal navigation projects and permitting for shoreside facilities to assure that capability throughout the nation's port system will keep pace with the needs of the United States to accommodate waterborne commerce.

C. ADEQUATE FUNDING - assure an adequate federal funding capability for deepdraft navigation channel improvements and maintenance as warranted by the flow of commerce through shoreside terminal facilities provided by non-federal entities.

D. DIVERSIONS - minimize costly distortions of current flows of commerce and diversions of U.S. cargoes to non-U.S. ports.

E. GREAT LAKES/ST. LAWRENCE SEAWAY - convert the St. Lawrence Seaway debt to equity and treating the Seaway as a component in the federal navigation system.

F. NATIONAL STANDARD - establish a national "standard" for operating channel depths of ocean ports.

II NATIONAL PORT SYSTEM (45 feet and less)

A. SERVICE - the Port System serves a wide range of cargoes as well as the international trade of all states, including inland states.

B. LOCAL INVESTMENT - the Port System represents a joint effort of federal and local investments. Neither is worthwhile without the other. The idea of "cost sharing" fostered by some ignores the local investment made in landside facilities for many years and far in excess of the federal investment to date. Any change in funding procedures must as a minimum protect that local investment.

C. NATIONAL INTEREST - there is a clear national interest in the development and maintenance of the Port System for international trade and defense purposes. This interest justifies the continuation of federal funding of these projects at appropriate levels.

D. COMPETITIVE PORT SYSTEM - the local interests involved in the development of the Port System have been competitive. It is this very competition that has been responsible for the viability of the System and the competitive forces should not be tampered with.

E. USER CHARGES - as an attempt is made to seek solutions to funding special purpose ports with user charges, the effort should not be allowed to extend to the National Port System. IF, and when, and to the extent necessary, it should be determined that the federal government can no longer afford to fund the dredging of the Port System, then any cost recovery/user charge system should go against the user, i.e. the ship and/or cargo, not against the local interest, to be passed along later. Should such a charge be made, the funds generated must be dedicated (to the maximum extent possible) legally and certainly (a clear intent of Congress so as to be) morally binding to the use for which they are imposed, i.e. dredging of channels and harbors for the National Port System.

III SPECIAL PORT REQUIREMENTS

A. EXCESS DEPTH - some cargoes may justify the deepening of channels beyond 45 feet. Because of the limited cargoes served these special requirements should be met by charges against those cargoes or ships.

IV SEPARATION OF NATIONAL PORT SYSTEM AND SPECIAL PORT REQUIREMENTS

A. FUNDING MECHANISM -regardless of how the funding is accomplished, it is necessary to separate the funding for construction and maintenance of channels and harbors 45 feet or less in depth from those over 45 feet.* While they are obviously all ports, the type of service offered is so markedly different and the funding requirements so disproportionate that separation seems mandatory.

B. APPLICATION OF USER CHARGE - IF, and when, and to the extent necessary, a user charge should become necessary, then it should be applied to all sailings of ships drawing 45 feet or less, as to the ship itself or its cargoes. If a separate fund for special purposes is created, its funds should come from charges applied to sailings of ships drawing more than 45 feet, as to the ship itself or its cargoes.

V IF AND WHEN A USER CHARGE

A. NEED FOR UNIFORMITY - any cost recovery system for the National Port System, (45 feet and less) that does not apply a user charge uniformly around the country would distort the competitive port system. Those that would have the local port authority act as an intermediary, would have the port pass the charge along to its users. Since the amount of dredging required and the volume of cargo handled in each port vary considerably, the user charge would also vary materially. This procedure would tend to favor a relatively few ports and disadvantage many. The disadvantage would inevitably increase exponentially until the disadvantaged ports became uneconomic and disappeared. Conversely, treated as an entire Port System, as it has been for over two centuries a uniformly applied charge collected by the federal government can be judicially utilized to keep the entire system viable.

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* some isolated instances, e.g. river mouth bars, may require deepening beyond 45 feet to accommodate ships of that draft.

B. ADVISORY TASK FORCE - the setting of a user charge system, IF, and when necessary, can have a variety of adverse effects, e.g. diversion of cargoes to non-U.S. ports, interference with our international trade, etc. The idea has not been subjected to the proper level of study. In addition, a system that does not take into account the changing economy, the changing sophistication of equipment, etc. would soon become outmoded. A possible solution to this dilemma might be that an Advisory Task Force, including port representation, be constituted to study and recommend to Congress initially, and each three years thereafter, how the system of charges should be structured and later what modifications, if any should be made in the system.

VI PROCEDURES

A. EXPEDITING - a morass of procedures have grown up to attempt to reassure a suitable level of concern for the environment. Congressional reform of these procedures is clearly necessary to see that dredging prospects can be undertaken and completed in a timely fashion. Such expediting must not be offered as a reward for an entity that pays part of the cost but must be made applicable to all dredging works.

B. CONGRESSIONAL REVIEW - some procedure must be in place to dispense the funds if a user charge is instituted. Allowing the decision to rest with whatever major user is willing to fund a particular project is to put the decision making relative to the National Port System and its scope in the hands of those that would serve their own ends. Such users are properly motivated to serve their own ends not those of the needs of a National Port System. To put that decision in the hands of a port that happens to have sources of income from its port or other sources, that it is willing to dedicate to dredging is likewise to abandon a National Port System. To put the decision in the hands of the bureaucracy alone would lead to a sterile formula that would fail to take into account the dynamics of the entire picture.

We believe that Congress has in the past and can continue to take into account the many factors, economic and otherwise that will lead to the proper decision. While there are those who make the accusation that this is merely the dispensation of largess to their constituency, the process has served well to weed out those that would be mere largess and has yielded a very viable National Port System.

GOOD MORNING:

MY NAME IS BRIANTURRELL, VICE-PRESIDENT OF JONES OREGON STEVEDORING COMPANY, 2323 N.W. SUFFOLK STREET, PORTLAND, OREGON. I ALSO HAVE THE AUTHORITY TO SPEAK FOR OTHER MASTER CONTRACTING STEVEDORES IN THE OREGON AREA.

THE STEVEDORING INDUSTRY PROVIDES THE EXPERTISE, GEAR AND EQUIPMENT AND TOGETHER WITH LONGSHOREMEN TO LOAD AND UNLOAD SHIPS AND BARGES. THE PAYROLL IN 1980 FOR LONGSHOREMEN AND CLERKS ALONG AMOUNT TO $107 MILLION IN THE OREGON AREA. WHEN YOU INCLUDE MANUFACTURERS IN FOREIGN TRADE THEN YOU WILL FIND THAT THE IMPACT REACHFS 500 MILLION AND IS PROJECTED TO GO TO 2.3 BILLION BY THE TURN OF THE CENTURY.

THE FOREIGN TRADE INDUSTRY GENERATED ABOUT SIX BILLION DOLLARS OF IMPORTS AND EXPORTS THROUGH OUT THE OREGON CUSTOMS DISTRICT IN 1980. WE HAVE NO INTENTION OF LETTING MATTERS GET OUT OF HAND TO INFLUENCE A REDUCTION IN THIS TRADE PICTURE.

IN 1979 DIRECT/INDIRECT AND INDUCED EMPLOYMENT AT MARINE TERMINALS WAS RESPONSIBLE FOR 52 MILLION IN INCOME TAXES TO THE STATE OF OREGON AND THIS IS EXPECTED TO INCREASE IN THE NEXT 20 YEARS. WHY PUT ANOTHER OBSTACLE IN THE WAY OF FREE AND UNTRAMMELED TRADE WITH FREE COUNTRIES, AND SOME NOT SO FREE, WHEN IT DIRECTLY BENEFITS THE STATE OF OREGON AND WASHINGTON?

IT IS NOT UP TO US TO DECIDE WHAT SHALL BE THE MEASURE OF COLLECTION OF FEES TO SUPPORT THE MAINTENANCE OF RIVER AND HARBORS, AND PERHAPS NEW CONSTRUCTION, BUT TO BESEECH YOU NOT TO VIOLATE THE SPIRIT OF THE CONSTITUTION BY NOT GIVING PREFERENCE TO ANY ONE PORT IN THE UNITED STATES.

FURTHER MORE, WHAT IS BEING CONSIDERED TO GENERATE FUNDS FROM OTHER THAN SHALLOW AND DEEP WATER VESSELS? WHAT ABOUT THE USERS OF WATER THROUGH IRRIGATION PROJECTS? WHAT ABOUT THE USERS OF ELECTRICITY GENERATED BY DAMS CONSTRUCTED ON THE RIVERS? THERE ARE MANY OTHERS WHO USE THE RIVER WHO COULD ALSO CONTRIBUTE AND THUS SPREAD OUT THE COST AMONGST MANY OF THOSE BENEFITTING FROM RIVERS AND HARBORS.

THE STEVEDORING INDUSTRY CONTINUES TO INVEST MILLIONS OF DOLLARS IN GEAR AND EQUIPMENT TO LOAD AND UNLOAD SHIPS AND BARGES. THE GRAIN ELEVATORS ARE TODAY SPENDING 10's OF MILLIONS OF DOLLARS ENLARGING AND MODERNIZING THEIR ELEVATORS. THIS IS JUST TO HANDLE THE PROJECTED INCREASES IN THE EXPORT OF GRAIN. THE GRAIN ORIGINATES NOT ONLY FROM OREGON, WASHINGTON, AND IDAHO, BUT AS FAR AS MONTANA, AND NORTH AND SOUTH DAKOTA. THE GRAIN MOVES BY TRUCK, RAIL, AND BARGE TO THE ELEVATORS IN THE LOWER COLUMBIA RIVER WHERE IT IS LOADED TO DEEP SEA VESSELS.

THE PORT OF PORTLAND IS PLANNING ON SPENDING 260 MILLION DOLLARS JUST FOR MODERNIZATION AND ENLARGING THEIR WATERFRONT FACILITIES IN THE NEXT 20 YEARS. THE PORT OF VANCOUVER IS INVESTING MILLIONS OF DOLLARS JUST SO THAT THE ANACONDA COMPANY CAN SHIP FROM MONTANA AND UTAH FOUR HUNDRED AND FORTY THOUSAND TONS OF COPPER PER YEAR AND ADDITIONALLY FOR THE EXPANSION OF THEIR EXISTING BERTHS. UNITED GRAIN ELEVATOR IN VANCOUVER IS SPENDING THIRTY-THREE MILLION TO ENLARGE AND TO MODERNIZE THEIR ELEVATOR.

LONGVIEW PORT IS SPENDING HALF-A-MILLION DOLLARS FOR A FACILITY TO HANDLE BEETS FROM EASTERN WASHINGTON TO LOAD ANIMAL FEED FOR JAPAN. THEY HAVE JUST FINISHED PROVIDING A NEW FACILITY TO HANDLE FERTILIZER WHICH ORIGINATED JUST ACROSS THE RIVER FROM LONGVIEW FOR EXPORT.

AS YOU CAN SEE ALL OF THE PORT AUTHORITIES HAVE FAITH IN THE TRADE THROUGHT THEIR PORTS AND ARE INVESTING HARD CASH TO AID AMERICAN IMPORTERS AND EXPORTERS TO MOVE AMERICAN MERCHANDISE TO FOREIGN MARKETS. EVEN TAX PAYERS HAVE SHOWN THEIR FAITH BY VOTING FOR GENERAL OBLIGATION BONDS FOR MAKING THE PROJECTS POSSIBLE, EVEN THOUGH IT MEANT INCREASING THEIR TAXES. THEY KNOW THAT THE RETURN IS GREATER THAN THEIR TAX. SO WHY SHOULD THE U.S. GOVERNMENT DESTROY THESE DREAMS BY LEGISLATING THE PORTS OUT OF BUSINESS BY UNNECESSARY BURDENSOME CHARGES?

PLEASE BEAR IN MIND THAT THE SHIPYARDS IN THE COLUMBIA AND WILLAMETTE RIVERS BUILT HUNDREDS OF SHIPS DURING WORLD WAR II AND ARE CONTINUING TO BUILD BARGES. WHAT WOULD THE DEFENSE DEPARTMENT IN WASHINGTON SAY ABOUT THE SILTING OF THE RIVERS AND HARBORS MAKING THE INACCESSABLE BECAUSE IT IS POSSIBLE THAT THE VARIOUS PORTS MIGHT NOT BE ABLE TO RAISE THE FUNDS TO ACCOMPLISH THE DREDGING. WE ARE MOST CONCERNED THAT IF THE RIVER IS NOT DREDGED TO AT LEAST 40 FEET AS IN THE PAST THAT THE FULL CARGOES OF LOGS, LUMBER WHEAT, CONTAINERSHIPS AND MANY OTHER BULK CARGOES COULD NOT BE LOADED IN THE AREA. IN FACT, A MINIMUM OF AT LEAST 45 FEET IS MORE PRACTICIAL. IT ONLY TAKES ONE SHALLOW SPOT IN THE RIVER TO HALT TRAFFIC. ALSO, WHAT WOULD HAPPEN TO PORT OF PORTLANDS 80 MILLION DRYDOCK WHICH IS CAPABLE TO HANDLING SHIPS WHICH NO OTHER PORT ON THE PACIFIC COAST CAN DO.

SENATORS I BESEECH YOU NOT TO LEGISLATE THE COLUMBIA RIVER OUT OF EXISTENCE.

THANK YOU.

INTERNATIONAL
LONGSHOREMEN'S & WAREHOUSEMEN'S
LOCAL 24 320 East Market St. Aberdeen, Washington 98520 UNION

PRESIDENT Glen Ramiskey

SECRETARY Dan Peterson

STATEMENT to the Water Resources Subcommittee, United States Senate
August 19, 1981 Vancouver, Washington

by Phil Curtis, International Longshoremen's and
Warehousemen's Union, Local 24

Mr. Chairman and members of the Water Resources Subcommittee of the Environment and Public Works Committee of the United States Senate, I thank you for the opportunity to appear today and make known the views of ILWU Local 24. Longshoremen from Local 24 have jurisdiction of the docks on Grays Harbor and Willapa Harbors of coastal Washington.

The proposals to install a "users fee" to recover costs of dredging by the Army Corps of Engineers of deep water ports would, in our opinion, put the entire system of water-borne commerce in the United States in turmoil.

By changing the means of financing our public waterways system, ignoring more than 150 years of traditional federal support, would jeopardize existing ongoing shoreside capital improvements including those at the Port of Grays Harbor, ITT Rayonier, Roderick Timber Company, and Weyerhaeuser.

Even though funding levels remain inadequate to bring our navigation system up to par with natural deepwater ports, we manage to serve the needs of Olympic peninsula logging and timber companies, as other Northwest ports serve the farmers of Montana and Idaho who ship their grain by barge and miners in Wyoming ship coal by rail to ocean side facilities for export overseas. All this effort is just a part of the 95% of international trade that moves through U.S. ports.

We recommend that the existing costs of construction, operating, and maintaining our navigation system be continued with respect to all channels with operating depths up to 45 feet.

Any change would probably force the closure of the river ports and smaller ports which require extensive dredging to maintain their channels as they could no longer compete with natural deep ports and foreign competitors.

In the Grays Harbor area alone, the maritime industry is directly responsible for 20% of the employment. The loss of any port and subsequent "dominoe effect" on employment and revenues, the elimination of competition, and the effect on the economy and balance of trade would be devastating.

POLITICAL ACTION COMMITTEE
Phil Curtis
Phil Curtis
Chairman

TESTIMONY BEFORE
SENATE SUBCOMMITTEE
ON
WATER RESOURCES

VANCOUVER, WASHINGTON
AUGUST 19, 1981

SENATOR ABDNOR, CHAIRMAN

JACK P. HOGAN
SEATTLE STEVEDORE CO.

THANK YOU, MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE. MY NAME IS JACK P. HOGAN, EXECUTIVE ASSISTANT, SEATTLE STEVEDORE COMPANY, 3415 11TH AVENUE SOUTHWEST, SEATTLE, WASHINGTON. WE LOAD AND UNLOAD VESSELS IN ALL WASHINGTON PORTS EXCEPT THOSE ON THE COLUMBIA RIVER, AND ARE AFFILIATED WITH STEVEDORE COMPANIES IN ALASKA.

WE IN THE STEVEDORING INDUSTRY ARE GRAVELY CONCERNED WITH THE PROPOSALS WE HAVE SEEN WHICH DEAL WITH RECOVERING FULL COSTS OF DEVELOPING AND MAINTAINING THE NATION'S WATERWAYS.

IT IS OUR FIRM BELIEF THE ADMINISTRATION'S PROPOSALS ARE POORLY TIMED AND CONCEIVED WITHOUT FULL KNOWLEDGE OF THE CONSEQUENCES. AT A TIME WHEN THIS COUNTRY IS SUFFERING ONE OF ITS WORST ECONOMIC DOWNTURNS IN HALF A CENTURY CONGRESS IS ASKED TO DISRUPT THE TRADITIONAL PARTNERSHIP BETWEEN THE FEDERAL GOVERNMENT AND THE SEABOARD COMMUNITIES. THIS PARTNERSHIP HAS HELPED, AND PERHAPS BEEN INSTRUMENTAL, IN DEVELOPING THE MOST EFFICIENT AND AGGRESSIVE WORLD TRADE SYSTEM IN THE WORLD. IT WAS THE COMMITTMENT BY THE FEDERAL GOVERNMENT TO KEEP THE WATERWAYS OPEN AND MODERN THAT PROMPTED THE STATES AND COMMUNITIES TO INVEST MILLIONS OF DOLLARS IN SHORESIDE FACILITIES. THE MEN AND WOMEN WHO OPERATE THESE FACILITIES AND THE COMMUNITIES SERVED BY THEM WILL HAVE THE RUG JERKED OUT FROM BENEATH THEM IF FULL RECOVERY LEGISLATION IS ENACTED.

IT IS OUR FERVENT HOPE THAT BEFORE ANY CHANGE IN THE EXISTING

FUNDING METHOD IS IMPLEMENTED, THE EFFECTS ON THE ECONOMIC WELL BEING OF THE COASTAL STATES BE WELL DOCUMENTED.

AT A TIME WHEN THE ADMINISTRATION IS CUTTING THE FEDERAL BUDGET...AND WHO AMONG US DOES NOT EMBRACE THAT CONCEPT...IT SEEMS TOTALLY UNREALISTIC TO UPSET THE FRAGILE ECONOMIC BALANCE OF THE WORLD TRADE COMMUNITY. THE POTENTIAL RISK OF CARGO DIVERSION ALONE RAISES THE AWFUL SPECTOR OF IDLE DOCKS AND UNEMPLOYED DOCK WORKERS.

UNLESS IT CAN BE JUSTIFIED BY CREDITABLE STUDIES THAT LITTLE OR NO IRREPARABLE ECONOMIC DAMAGE WILL RESULT FROM THE IMPOSITION OF FULL COST RECOVERY LEGISLATION, WE MUST STRONGLY URGE YOU TO GO SLOW. WE HAVE A SYSTEM NOW IN PLACE THAT IS WORKING, A SYSTEM THAT IS PROVIDING THE FACILITIES TO MOVE THE GOODS INTO AND OUT OF THIS COUNTRY. DON'T UPSET THAT SYSTEM NOW BY LEGISLATION WHICH WILL "SAVE A PENNY AND COST A MILLION" IN ECONOMIC WOES.

THANK YOU, MR. CHAIRMAN, FOR THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY.

TESTIMONY
TO
WATER RESOURCES SUBCOMMITTEE
OF
U.S. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Vancouver, Washington
August 19, 1981

Presented by
GLEN H. FIEDLER, ASSISTANT DIRECTOR
WASHINGTON STATE DEPARTMENT OF ECOLOGY

Mr. Chairman and Members of the Committee.

I appreciate the opportunity to comment on several water resources policy matters of great significance to our state.

The Washington State Department of Ecology is the state's water resource management agency. We also have responsibility for water quality, air quality, solid waste, and hazardous waste management. In the water resources area, the Pacific Northwest has often been viewed by many interests as a water-rich region. However, as demands for water have increased, competition for water has developed to the point where we now have many uses competing for a limited supply. In fact, many of our rivers are very highly developed (such as the Columbia) and several are fully appropriated (such as the Yakima).

Although there are many significant water resources issues that could be discussed, I will only touch on a few key ones - the first being Federal water project development and cost sharing.

Since the early 1900s, the state of Washington has been working closely with local sponsors to achieve water project development.

Through the State Reclamation Revolving Account, established in 1919, the state has provided low interest loans and purchased the bonds of irrigation districts for both new projects and rehabilitation of existing works. Of the state's 96 irrigation districts, 23 presently benefit from this account. Total bond indebtedness is about $1.6 million.

In 1972, the people of the state of Washington approved Referendum 27, which provided $25,000,000 for Agricultural Water Supply Facilities. Fifteen million dollars were expended as a state share to construct the Second Bacon Siphon and Tunnel, a necessary component of the Columbia Basin Federal Reclamation Project which will encompass more than 1,000,000 acres when completed.

The remaining Referendum 27 monies have been available under 15 percent grant, 35 percent loan contracts primarily to provide state and local support for projects that are in part federally financed.

More recently, in the drought year of 1977, the Washington State Legislature authorized issuance of $18,000,000 in general obligation bonds for drought-related irrigation project construction and, through subsequent statutory changes, these funds are now being utilized for cost sharing and to identify clear state support in federally financed projects.

In November 1980, the people of the state approved Referendum 38 which provided another $50,000,000 for agricultural water supply and improvement projects. Basically, these funds, like the others, are intended to provide some state and local cost-share capability for much needed agriculturally related projects where additional Federal financing will be required.

Because of the continuing need for water project development, the state is vitally concerned with Federal cost-sharing policies. We recommend that any cost-sharing arrangements provide:

1. Uniformity among cost-sharing requirements for structural and nonstructural projects.

2. Full front-end Federal funding for those projects deemed necessary to meet significant national needs where the non-Federal share cannot be provided initially. Subsequent cost recovery over time should be allowed.

3. A flexible approach to cost sharing. A flat rate would in many cases preclude non-Federal participation and is, therefore, undesirable. The state of Washington favors a sliding, cost-sharing scale which would require a smaller percentage non-Federal share on large projects. If this is not done, the state may be unable to participate in large projects due to the costs involved. For example, on small projects the state currently provides 15 percent grant and 35 percent loan. On the $400 million Yakima Enhancement Project, the state grant portion would be 8 percent.

4. That the percentage of non-Federal funding should vary with the type of project. For example, high national or Federal interest projects (such as energy development, national defense, strategic mineral development projects, or projects on Indian reservations or Federal reserves) should be fully federally funded. Projects where full cost-recovery is possible might have one cost-sharing rate, whereas projects benefiting the region or state might have still another. There should, however, be a maximum non-Federal share clearly defined (perhaps 25 percent).

5. That any legislation dealing with cost sharing should clearly specify that non-Federal funding includes states and/or local funding and is not limited to state involvement.

There have been several proposals relating to block grant funding of water resource projects. This is an interesting concept that might shorten project development time. Although not a direct comparison or analogy, the funding features of the municipal construction grant program under the Federal Water Pollution Control Act might be considered. The state of Washington now administers this program, and we have identified several problem areas. These are:

1. The tendency to impose uniform nationwide priorities or conditions must be avoided. Early in the construction grant program, for example, the assumption was made that the nationwide priority was for secondary treatment plants as opposed to other aspects of water pollution control, and funding for these other measures was not allowed in spite of any state priority list. Because the needs of the states vary tremendously, Congress should ensure that no unnecessary or inappropriate restrictions are placed on use of funds in the name of an assumed uniform nationwide need.

2. Adequate time must be allowed for the states to obligate authorized funds. In addition to this, we would like to see a provision allowing termination of an obligation if no progress has been made on initiating the project within a specified number of years. This recommendation is based on experience where funds are obligated to projects which are not, in fact, ready to proceed, and such obligations cannot be terminated.

3. The construction grants process requires three separate prioritizations -- for planning, design, and construction -- which do not allow a commitment to a total project until the final construction stage. Flexibility should be provided to allow states to tie a feasibility study priority to a construction funding priority such that a project has reasonable assurance of funding if all interests accept a positive feasibility study.

The second area we wish to address is Federal/state water resources coordination and planning.

Washington State is concerned about the void created by the termination of the U.S. Water Resources Council and the Pacific Northwest River Basins Commission and is concerned about the future status of Water Resources Council rules and regulations, including the Principles and Standards. The state of Washington has been an active participant in Federal/state planning and coordination efforts under the auspices of these two organizations.

The water resources of Washington State are heavily developed, and Federal planning and project assistance have been instrumental in establishing significant state water resource management and utilization programs. State participation in the planning grant program has permitted us to vigorously represent our interests before Federal agencies and respond to Federal programs and projects.

For these reasons, we strongly support the continuation of a viable Federal/state water management and planning program to enable the continuation of our strong resource management and development programs and to provide us with the capability to respond to Federal water programs and projects. States should not be required to pay the full cost of review of proposed Federal actions over which they exercise minimal control. Furthermore, we feel that state water resources planning grants should be authorized for at least five years to ensure continuity of programs and staff.

Washington State has been an active partner with Federal agencies through the U.S. Water Resources Council and the Pacific Northwest River Basins Commission. With the termination of these organizations, we are concerned about the maintenance and continued viability of this critical relationship. Therefore, we strongly support the establishment of an independent national water policy coordination mechanism with heavy state involvement and participation.

We suggest that such a mechanism include a state advisory group to facilitate this involvement. It should be noted that we do not support an Office of Water Policy in any single Federal agency if its purpose is to establish national water policy affecting numerous Federal agencies.

We support the concept of a strong regional organization with the authority to mandate Federal agency coordination and consultation with state water management agencies. We feel the establishment of any such body should be at the request of the involved states. In establishing the mechanisms for such a body, Congress should give careful consideration to the balance of Federal and non-Federal membership. The state members should, at a minimum, be represented on an equal basis with the Federal members.

The need for a Federal/regional coordination entity can be illustrated by the following example. A few years ago Washington State issued irrigation water rights for several projects taking water from the Columbia River. The U.S. Army Corps of Engineers refused to issue Section 404 permits for these projects because the U.S. Fish and Wildlife Service was requesting that the Corps include minimum instream flow requirements as 404 permit conditions. The state of Washington maintained that the state was the proper authority to establish instream flow requirements. The Corps ultimately agreed that the state of Washington was the proper entity to establish such instream flows. The state developed a program which included establishment of minimum instream flows and adopted a regulation including these flows. The Corps of Engineers objected to the level of flows because of the energy impacts on the hydroelectric system, but ultimately issued the 404 permits. Although this has largely been resolved, we feel this action demonstrates the need for a strong, coordinative body to help reduce the potential for such problems.

The last area I would like to address is that of hydropower licensing by the Federal Energy Regulatory Commission.

Hydroelectric power is a rediscovered resource. Its desirability as a renewable, nonpolluting, domestic energy supply has become more evident as the problems of thermal plant development have escalated. Properly designed and operated hydroelectric projects can be one of the most environmentally compatible sources of new electrical capacity. They cause no direct air or thermal pollution problems and do not add to atmospheric levels of carbon dioxide. The environmental impacts that do occur tend to be better understood and more predictable than impacts from other energy sources.

Many opportunities for hydroelectric development still exist in Washington State, and accordingly, we are faced with a resurgence of interest in developing such projects. The Department of Ecology is actively tracking over 200 separate hydroelectric proposals at this time. Many of these are in various Federal Energy Regulatory Commission (FERC) licensing stages, and all require some form of state permit, including water right permits. It is our firm position that state water right permits must be obtained for the use of the waters of this state for such projects. Because of the present FERC procedures and court decisions interpreting the Federal Power Act, many applicants do not believe state permits are required. I have attached a recent background paper on this subject, prepared by Mr. Charles B. Roe, Senior Assistant Attorney General for the state of Washington.

We are experiencing problems with FERC and its established procedures for permitting hydroelectric facilities under the Federal Power Act. We are deeply concerned about the lack of formal coordination and consultation with us and the apparent disregard for the state's water management authority. Some of the problems we have experienced recently include FERC issuing preliminary study permits to two applicants competing for the same site and granting "verbal" exemptions to applicants with small proposed projects.

The lack of formal consultation with the Department of Ecology, as the state's water management agency, is also a serious concern. FERC is required by the U.S. Fish and Wildlife Coordination Act to formally consult with the state fish and wildlife agencies, but not with state water management agencies. It is our view that FERC should be required to formally consult with state water management agencies. Furthermore, it is our feeling that unless there is a Congressionally authorized project with overriding national interest, FERC should defer to state water management authority concerning the water resources aspects of hydroelectric project licensing.

Because these problems are frustrating our ability to properly manage state water resources, we are requesting that you seek formal Congressional oversight of FERC hydroelectric project licensing regulations and procedures. We are especially concerned about the lack of formal coordination with state water management authority. We hope you will closely examine these questions.

Because time is limited, only several key issues have been mentioned. I would be most happy to entertain any questions you may have concerning these or any other water related matters. Thank you for this opportunity to comment on a subject vital to the well-being of Washington's citizens.

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

OREGON WATER POLICY REVIEW BOARD

Donel J. Lane, Chairman

August 19, 1981
Vancouver, Washington

Despite the appearance of an abundant supply, the Pacific Northwest is rapidly approaching a period of confrontation and crisis in the management of its water resources. A number of reports prepared over the last ten years have attempted to define the extent of existing and future conflicts between competing uses of water in the face of growing regional demands.

The Columbia Basin is a complex river system encompassing several states, public and private interests, federal projects and Indian treaty rights. Over the years, a number of mechanisms have been employed in efforts to coordinate the wide ranging activities of the agencies and organizations involved in the Columbia system.

We have been fortunate in recent years. Total runoff has been average to above average much of the time. The Pacific Northwest has not recently experienced the successive low-flow years of the 1920's and 1930's. Even with favorable conditions, however, we remain precariously close to water conflicts each year.

In 1977, the potential conflicts became a reality when the Governors of

Oregon, Washington, and Idaho were asked to choose between generating power and releasing water for the survival of already troubled runs of anadromous fish in the Columbia system. Additions to generating capacity now in place, under construction or planned, will allow greater use of the Columbia projects for peak power demands. This change in operation will result in greater river fluctuations and will likely impact navigation, recreation, fish and diversions on the mainstem. Increased irrigation from the Columbia has been a significant factor in recent growth in Northwest agriculture. It is anticipated that irrigation from the Columbia River and tributaries will continue to increase as will demands for water for other purposes.

The recently passed regional power bill has placed strong emphasis on two uses: hydroelectric power and fish resources. This approach to these important concerns, however, could ultimately complicate management options for other uses and problems such as navigation, irrigation and flood control in the future.

Idaho, for example, has adopted a state water plan to achieve, among other objectives, retention of its percentage of the nation's food ano fiber production. Washington has a program for water development utilizing state bond issues. Oregon has a loan program for irrigation and drainage projects financed by general obligation bonds. The legislature has proposed amendments to broaden the program to include municipal water use. This Oregon program is limited to 1 and 1/2% of the true cash value of the State or about 1.1 billion dollars. Under statewide land use planning goals, most local governments in Oregon have or are in the process of adopting comprehensive plans that emphasize preservation of agricultural lands in agricultural production. As part of its water management program, Oregon has also established minimum perennial streamflows at approximately 400 locations to support aquatic life.

If Oregon and the region are to meet their diverse economic and social objectives more water will be needed. Without additional storage, we face the prospect of increasing conflicts, confrontations, and the allocation of shortages between competing uses.

The region, however, is not running out of water. The problem, simply stated, involves disparities in the seasonal and geographic distribution of runoff in relation to regional water needs.

As one example, spring runoff must be stored to be used throughout the summer and fall to meet the region's winter power demands. A commonly used comparison notes that the existing Columbia Basin storage, approximately 43.5 million acre-feet, represents about 25% of the average annual flow of the river. Storage capacity in the Mississippi system is about three times the average annual discharge. In Colorado, existing storage is about eight times the annual flow.

Increasing water storage is perhaps the only available avenue that could lead to a reduction in the potential conflicts in the Columbia system. Previous studies indicate between 10 to 17 million acre-feet of additional storage will be needed in the region by the year 2020. Actual requirements could even be greater because the international treaty with Canada may be terminated or at least subject to renegotiated terms after 2022. Approximately 20% of the flow of the Columbia originates in Canada. Since nearly one-half of the total system storage is also located in Canada, changes in treaty provisions could have a substantial impact on the Pacific Northwest.

Many of the potential sites for large storage projects have been developed. Most of the undeveloped sites on the Columbia and its major tributaries are not currently viewed as practical options because of environmental, economic, legal or social implications or constraints. A substantial potential for storage development, however, still exists at off channel sites and through use of smaller upstream impoundments.

Any water development, under the most favorable conditions takes a couple of decades from conception to fruition. If conditions in this region are to be improved, it will require a continuous effort by both state and federal governments directed toward improved water supply. Appropriate national policies could continue to aid in the solution to water related problems. Specifically, we suggest incorporation of the following principles or policies in any national water resource legislation:

1. Provisions to allow the establishment of legal entities for regional coordination of water resource activities. With the pending elimination of the Pacific Northwest River Basins Commission, there will be no legal entity to bring together the often disparate activities in the Columbia Basin. Oregon strongly believes that, because of the unique nature of the Columbia, coordination of the complex interests in the system will be even more critical in the future.

2. Provisions for a coordinating entity at the federal level to most effectively utilize limited funds and resources and to help achieve uniform and consistent criteria for analysis between federal agencies. We suggest the coordinating entity be headed by an independent chairman appointed by the President and confirmed by the Senate.

3. Recognition of the need for continued State-Federal cooperation in water resources development, including the need for continued federal funding for state planning and necessary acquisition of basic data.

4. Provisions for cost sharing or local support should recognize the existing commitments to water resources development from state and local governments and users. States like Oregon are currently using their bonding capacity for water resources development. In many projects operation and maintenance costs are all locally borne. These payments over the life of a project may often exceed the construction costs.

5. Recognition of the national and international interest in some water uses such as maintenance of anadromous fish runs. In general, Congress has limited its attention to the historically authorized functions of navigation, power, and flood control. We believe that list should be expanded to aid in the construction of storage to enhance and improve fish resources.

6. Recognition of state primacy in the allocation and administration of water resources. Failure to recognize state roles could disrupt 75-100 years of

water administration in the west. Additionally, the cloud of federal reserved rights is still an undecided question worthy of consideration by the Congress.

7. Recognition that 160 acres is no longer an economic farming unit. With the increased emphasis on mechanization and in view of the soils and climatic conditions found in many areas, smaller farms are just not viable entities in many areas of the west today.

Finally, we believe it is time that the nation recognized the Columbia River is not a limitless resource. Allocation of these waters to other areas of the nation will only aggrevate existing conflicts and limit regional development. It must also be recognized that a significant portion of the runoff arises in Canada. The availability of these waters to the Northwest and United States is not assured beyond the limits of the current international treaty.

TESTIMONY OF
GEORGE PROCTOR, VICE-CHAIRMAN,
PACIFIC NORTHWEST RIVER BASINS COMMISSION
TO THE SUBCOMMITTEE ON WATER RESOURCES,
ENVIRONMENT AND PUBLIC WORKS COMMITTEE,
UNITED STATES SENATE
August 19, 1981, Vancouver, Washington

The Pacific Northwest River Basins Commission, formed in 1967 as the first river basin commission under PL 89-80, consists of five states (Oregon, Washington, Idaho, Montana, and Wyoming) and eleven federal agencies for the planning and coordination of all the beneficial uses of water and related land resources for the Columbia River Basin.

In accordance with PL 89-80, the Commission has not only developed a comprehensive coordinated joint plan "Water - Today and Tomorrow" together with states regional priorities, but has acted as the principal and only entity for such planning and coordination.

The mighty Columbia River has a substantial federal presence by virtue of 60 percent ownership of the lands within the basin and having extensive facilities on the River. The Federal, State and local entities, each with their many agencies reacting with the River, are more numerous than time and space allows to list.

Obviously coordination and planning on a regional basis is necessary and should be continued until the next step, such as a compact, congressional or legal adjudication is accomplished for the Columbia River.

President Reagan's directive in cutting general federal funding, but at the same time transferring to the region, states and localities the authority and resources to place government nearer to the people, presented a challenge that was accepted by the State Members with a positive intent.

Having been Vice-Chairman of the Commission and becoming Co-acting Chairman the beginning of this year (upon termination of Chairman), the first question presented to the states was whether the Commission should be continued - the answer, a unanimous "yes." The second question was the scope of the work program. After conferring with the respective governors' offices, a redirected work program was adopted to meet the regional needs of the states without federal funding for the Commission (Exhibits A and B).

During this interim period the Commission has been responsive and productive, largely due to the efforts of a dedicated staff, and in kind service made available to the Commission. (Partial resume of activities is attached -Exhibit C.)

The subsequent pending unilateral action of the Administration through the Water Resources Council to terminate the Commission as of September 30, 1981, without consulting with the states (even though federal funds are not involved), removes the legal and practical basis for state-federal coordination and planning on the Columbia River. This will be a step backward and instead of transferring the responsibility to the states and local entities and cutting waste of public funds, it does just the opposite (See Exhibit D).

After being directly involved, my personal views are that an opportunity for a strong state-federal forum needs to be retained to reflect the needs of the states and region in water resource matters. SB 1095 addresses this concern. My comments on the Bill are attached (Exhibit E).

STATE CAUCUS RESOLUTION ON REDIRECTION OF COMMISSION PROGRAMS, ORGANIZATION, AND FINANCING FOR FISCAL YEAR 1982

June 10, 1981

Whereas, actions by Congress and the Administration raise questions regarding the future of the Pacific Northwest River Basins Commission; and

Whereas, the states of Oregon, Washington, Idaho, Montana, and Wyoming strongly feel that given positive state direction a regional entity such as the Commission can play a major role in water resources planning and coordination; and

Whereas, Congress adopted the Pacific Northwest Electric Power Planning and Conservation Act of 1980 which established a power planning council which is required to produce a plan in two years, and the regional plan would benefit from a review and endorsement by an independent body that has extensive expertise in evaluating a broad range of beneficial water uses and a comprehensive view of water resources in the Northwest; and

Whereas, there is renewed interest to divert water from the Columbia Basin to the Southwest and the northwest states need to maintain their unified posture on this subject;

Now be it resolved, that the states of Oregon, Washington, Idaho, Montana, and Wyoming strongly support the continued existence of the Commission, in its coordination/planning role and that carry-over funds be used to maintain the Commission through fiscal year 1982 to address the following programs at the designated budget level.

continued

Exhibit A-1

State Caucus--Resolution June 10, 1981

PROGRAMS

(1) Administration: $25,000

(2) Coordination of Water Resources Planning and Management: $125,000

(3) Planning: $100,000

- (a) Drought Contingency Planning
- (b) Maintain Regional Diversion Proposals
- (c) Institutional Programs and Issues

BUDGET LEVEL

FY 1982 Budget

Salaries & Benefits	$162,000
Travel/Per Diem	13,000
Contract Services	12,000
Rent	12,000
Postage	14,000
Printing	12,000
Equipment & Supplies	24,000
Public Involvement	1,000
	$250,000

Be it further resolved that the Commission programs and budgets for fiscal year 1982 and fiscal year 1983 will be reviewed at the next Commission meeting and will be modified to reflect action taken or pending at the national level relative to national and regional water resource planning.

Exhibit A-2

REDIRECTION OF COMMISSION PROGRAMS, ORGANIZATION, AND FINANCING FOR FISCAL YEAR 1982

RECOMMENDED PROGRAMS--FISCAL YEAR 1982

1. Coordination of Water Resources Planning and Management, including Federal Program Review, Developing State Priorities, Supporting Technical Committees, and Promoting the Stewards Concept.

The basic responsibility of the Commission is the coordination of water resources planning in the region. This function is vital in the Pacific Northwest because of the pronounced state and federal interest in the Columbia River and where virtually all water resource decisions made and actions taken in the Columbia River system affect all or large areas of the other states and the rest of the region. Commission activities should include program review, the priorities process, regional water use program, support of six technical committees, and promoting the concept of stewardship of the region's natural resources. In addition, the Commission should promote communication among resource managers by conducting forums, meetings, and workshops during which pressing water resource problems and issues are addressed.

2. Availability to Administer Columbia River Estuary Data Development Program.

The Commission's estuary program will normally move to data analysis and information dissemination during fiscal year 1982. These two activities are the culmination of the program activities and will result in the fulfillment of the original program purposes--to better understand the functioning of the biological and physical processes of the Columbia River estuary and the improvement of management decision processes at all levels of government.

The program now in its third year of data development for the lower 46 miles of the Columbia River (the estuary), will complete field work by December 1982. The program is being undertaken by a mix of 18 federal and state agencies, academic institutions, and private firms working together through shared facilities maintained at the Commission's Warrenton, Oregon, field station and is dependent upon additional funding for FY 82.

3. Availability to Provide Information to Power Planning Council and Bonneville Power Administration in Implementing the Power Planning Act.

The Pacific Northwest Electric Power Planning and Conservation Act of 1980 established a policy whereby the Bonnevile Power Administration will provide for the electric power needs of the region in accordance with a power plan and a fish and wildlife program within two years prepared by the newly created Pacific Northwest Electric Power Planning and Conservation Council. For 14 years, the River Basins Commission has operated a multipurpose natural resources planning coordination and communications structure among state and federal water resources agencies by means of various Commission programs and technical committees. It is recommended that with a planning staff in place, the Commission and the Power Planning Council establish a cooperative working relationship as soon as feasible, in conjunction with the Bonneville Power Administration to address their common Power Act needs in regional

Exhibit B-1

communications, technical input, and plan and program review; that the Commission provide on contractual basis such services that are needed and appropriate.

4. Monitor Proposals for Out-of-Basin Water Diversion from the Columbia River System.

Since the Congressional moratorium does not apply to private, local, or state government investigations, and because the federal moratorium extends for only a few more years, the Commission should develop and maintain as much information as to the developing needs and pressures of other basins as it relates to inter-basin transfer as well as proposed and potential out-of-basin diversions. This would involve incorporating our existing data on Columbia Basin within this context and identify needs, pressures, past and current proposals arising from the expanding water use situations such as in southern California, Arizona, oil-shale development in Colorado, and missile system construction in Utah.

5. Develop Insitutional Arrangements for Columbia River Basin Water Allocation.

In 1952, Congress authorized the states of Oregon, Washington, Idaho, Montana, and Wyoming to negotiate an interstate compact on the Columbia River. In 1954, the states of Utah and Nevada were also authorized to participate in the negotiations. Negotiations followed, and efforts to gain state ratification of an agreement extended through 1965, when active negotiations and efforts were ended without completing an agreement. The negotiation authority, however, remains in effect.

The need for pursuing compact negotiations or other means by allocating Columbia River Basin waters has become necessary now due to the increased use and competition for water for both instream and out-of-stream purposes as well as proposed out-of-basin transfers. To address this need, the Commission should develop consistent information for use by state members and concerned federal members for purposes of understanding current water uses, water demands, and alternatives and to provide a forum to address institutional framework for interstate water allocations.

6. Develop Drought Contingency Program.

Most, although not all, of the major potential water resources conflicts in the Columbia River system become more critical under drought or water shortage conditions. When a drought occurs, there is not enough water in the system to support at an acceptable level all the uses of the Columbia River's waters. The difficult decisions must be made on a regional basis because the Columbia River Basin is largely controlled and operated as a system.

The Commission should develop a program which will facilitate fast and equitable response to drought conditions, identifying legal and institutional constraints and factors affecting water allocation decisions and a decision process to be followed when drought conditions occur or are forecast. This process would allow regional officials to cooperatively plan the use of water resources to minimize the adverse effects of water shortage.

Exhibit B-2

RECOMMENDED ORGANIZATION AND FINANCING--FISCAL YEAR 1982

ORGANIZATION

During fiscal year 1982, the Commission should retain most of its existing structure. Program responsibilities should remain with the Vice-Chairman, with a federal acting chairman administering fiscal matters. The staff level will depend on funding and the program approved for fiscal year 1982. Contributed services will be needed from both state and federal members in order to effectively conduct those programs.

FINANCING

At the present expenditure rate, the amount of carry-over available on September 30, 1981, for expenditure in fiscal year 1982 will be between $250,000 and $275,000. This amount should be used to fund Commission activities for fiscal year 1982, on the assumption that no state or federal funds are contributed during that year. For fiscal year 1980, expenditures were $256,851.52, and the first half of fiscal year 1981 expenditures were $121,132.55.

FY 82 Budget			
Salaries/Benefits	$162,000	Programs	
Travel/per diem	13,000	Coordination	$125,000
Contract Services	12,000	Planning	
Rent, etc.	12,000	- Diversion)	
Postage, etc.	14,000	- Institutional)--	100,000
Printing	12,000	- Drought)	
Equipment & Supplies	24,000	Administration	25,000
Public Inv.	1,000		
		Total	$250,000
Total	$250,000	Special Studies	
		- Estuary	
		- Power Act	

Member agencies would assist by providing contributed services for planning, administrative, printing, and other aspects of Commission programs.

A possible source of some funds for fiscal year 1982 would be public solicitation. Such contributions could provide needed funds for administration of the Stewards of the River Program.

DURING FISCAL YEAR 1982, COMMISSION SHOULD DEVELOP PROGRAMS, ORGANIZATION, AND FINANCING--FISCAL YEAR 1983.

Exhibit B-3

EXHIBIT C. Commission Activities (Partial)

During the interim period we have completed several important planning efforts, conducted a variety of helpful coordination activities and charted a future which we had hoped to follows:

1. Only source publications:
    - (a) Federal Water Resources Programs in the respective states;
    - (b) State Priorities For Federal Water Resources Projects.
2. Planning publications:
    - (a) Water Resources Plan for Snohomish River Basin;
    - (b) Water Assessment Of Emerging Technologies in Pacific Northwest;
    - (c) Update of the level and future of irrigation for the region.
3. Other publications:
    - (a) Annual power planning report in the Pacific Northwest;
    - (b) Map brochure on the Columbia River and its uses (Snake River in process).
4. Coordination:
    - (a) Forum on water resources economics;
    - (b) Meeting of six technical committees - economics, fish and wildlife, land resources, power planning, recreation, and water resources;
    - (c) Meetings of the Commission.
5. Sponsor - intensive data collection and research program for Columbia River Estuary.
6. Addressed the future role and began a redirected work program to reflect the needs of the states.

Exhibit C.

EXHIBIT D. CONSEQUENCES OF TERMINATION.

The unilateral action of the Water Resources Council without consulting the states to terminate the Pacific Northwest River Basins Commission, a unique state-federal relation (not a federal agency) effective September 30, 1981, providing the only water resources planning and coordination for all the beneficial uses for the Columbia River system after the Commission has redirected its work program for fy '82 to address the states' regional needs without federal funding, will have the following consequences:

1. Transfer responsibility to the States - No. The action has just the opposite effect. It terminates state-federal regional planning and coordination, leaves the U. S. Corps of Engineers with the only comprehensive Basin planning authority. The Corps has generally directed its activities to site specific planning in the Pacific Northwest.

2. Improve State-federal relations - No. The Administration without consulting the states, or having a hearing or meeting, unilaterally approved termination by an action memo, leaving no state-federal entity to address all of the beneficial uses of the Columbia River.

3. Reduce waste of public funds - failed. Not only was federal funding not requested for redirected work program, but close-down costs may equal or exceed fy '82 operating costs. It makes little sense (1) to pay into unemployment reserve when personnel could be on the payroll;

(2) to pay rent for a year but not use it;

(3) to dismantle an on-board planning staff when it could relate to the Regional Power Act.

Exhibit D-1

4. Recognize the area of origin - No. Removes restrictions on the study,plan or recommendations for inter-basin transfers of water.

5. Orderly close down - impossible. Executive Order has not been signed as of this date, leaving little time between now and termination.

Exhibit D-2

EXHIBIT E. AMENDMENTS.

S - 1095

Title IV. River Basin Commission.

Sec 40 (a) Line 12 add: "However if the Columbia River Basin is involved, by at least three of the four states of Idaho, Montana, Oregon and Washington."

Line 15 add: "States and federal agencies."

Line 21 and 22 delete: "if requested by the member States and approved by the Board."

Provision should be included to allow the existing River Basin Commission to roll over under the new Act.

Exhibit E.